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4. GDP and the new concept of development: Understanding China's changing concept of development in regards to GDP after the reform and opening-up

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Over the past 40 years of China's reform and opening-up, understanding of development has continued to deepen, with more scientific measures incorporated. China's transformative understanding of gross domestic product (GDP) is reflective of the change in views and concepts of development.

Introduction of GDP and China's original GDP denial

GDP is the most important indicator for the scale and growth of the economy of a country or region. It is a comprehensive measure of the value of the flow and stock of national economic activities.

Before World War II, measuring growth was a challenge. After the war, statistical measurement and empirical analysis of economic activities grew rapidly. The compilation of national economic statistics evolved into a national economic accounting system that comprehensively measured the flow and stock of aggregate national economic activity. GDP is the core measure in this system. The well-known United Nations System of National Accounts (SNA) has become the international standard for measuring economic activity. Keynesian and subsequent macroeconomics and economic growth theories were developed through its application.¹

Before its reform and opening-up, China had long followed the theory and practice of the former Soviet Union. Despite significant differences between the conditions in China and the Soviet Union after Stalin in the late 1950s, China's

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¹ From the 1920s, Simon Kuznets' research on the measurement of national income and economic growth, and research on the national economic accounts system chaired by Richard Stone in the 1940s, promoted the development of traditional statistical research into the national income accounting system. As a result, Kuznets won the Nobel Prize for Economics in 1971 and Stone won in 1984.

understanding of ‘industry’ and its national economic accounting still followed the Soviet system. China established an accounting system that was different from the West’s GDP accounting system, and was instead built on Soviet theorists’ traditional understanding of Marx’s labour theory of value and reproduction theory. It did not recognise nonmaterial output in the service and tertiary sectors. As the representative of economic theory in the former Soviet Union, Wassily Leontief’s early chessboard balance sheet research was later developed into the famous input industry table, as well as analytical methodology.²

China had adopted a Soviet-style statistical accounting system based on gross industrial and agricultural production and other material products. Additional reasons for negating the value and significance of GDP were more deeply rooted. During the decade of the Cultural Revolution, when ‘productivity theory’ was criticised and class struggle was preminent, China ignored the development of its economy, leading to the estrangement from the concept of GDP. When China ignored the importance of economic development gauged by the importance of national income statistics and resource allocation accounting, it was only natural that the significance of economic growth and economic development would be downplayed. The denial of GDP and the national accounting system was essentially a reflection of the off-centre ideology that neglected productivity and development. During China’s long economic closure to the rest of the world, there was little access to economic growth comparisons with other nations and measuring its own economic activities with the internationally accepted national accounting system was difficult. The deeper systematic reason for the denial of GDP was that the GDP accounting system reflected market-based resource allocation. It was neither possible nor necessary to adopt the GDP accounting system for a centrally planned economy.

Recognition of GDP as an economic measure amid sustained rapid growth of the Chinese economy

At the beginning of China’s reform and opening-up, the most pronounced developmental challenge the country faced was the elimination of poverty. With the deepening of China’s understanding of the primary stage of socialism and the clarification of the Communist Party’s position, consensus was reached to promote development and lift China out of poverty.

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2 Leontief won the Nobel Prize for Economics in 1973.

On 4 October 1979, the chief architect of China's reform and opening-up, Deng Xiaoping, for the first time used the gross national product (GNP) indicator to define China's economic growth target, in a speech at the meeting of the first secretaries of the Communist Party of China (CPC) from all levels of government. Deng asked: 'Can we reach GNP per capita of over \$1,000 [US dollars] by the end of this century?' He continued:

Not long ago, I said that when our per capita GNP reached that figure, we will be in a much better position and able to provide more support to the poor countries of the Third World. We cannot do so now. China's per capita GNP is probably below [US]\$300, so it is hard for us to increase it even 200 or 300 per cent. We shall have to work as hard as we did before. Even lowering the previous goal and fulfilling the lower targets, we shall still spare no effort to promote economic development and we will do every aspect of our work effectively. (Deng 1984)

This was the first time in the 30 years since the founding of the People's Republic of China that Chinese leaders used GNP indicators to set out development goals.³

Japanese prime minister Masahiro Ohira later asked Deng how China perceived its future modernisation targets. Deng used GNP as the basic measure in his reply, saying that from the end of the 1970s to 2000, China's total economic output should quadruple, with GNP per capita reaching US\$800–1,000. He emphasised the hard work it would take to achieve this.⁴ This opened up a grand plan for growth and development with GDP (GNP) as the core growth indicator and a goal of quadrupling GDP in China over 20 years (Liu and Cai 2006). From the national development and growth plan to the economic plans for all provinces and cities, GDP growth became the core planning and assessment indicator. The Chinese Government made plans to expedite the economic growth rate, and local governments began to compete with each other to achieve higher GDP growth. In practice, China met the target of quadrupling GDP at constant prices compared with 1980 three years ahead of schedule, in 1997. The government then proposed quadrupling GDP again, by 2020 from 2000, and achieved its goal of doubling 2000 GDP three years ahead of schedule, in 2007. From 2010 to the end of 2017, GDP increased at an average rate of 9.5 per cent per annum. China's share of global GDP increased from 1.8 per cent to about 15 per cent, ranking it second in the world. In 2017, China contributed more than 30 per cent of global economic growth. China's GDP per capita has jumped from more than US\$250 to more

3 GDP and GNP are essentially the same accounting systems. As statistical indicators, the gap between the two comes mainly from the 'income of foreign factors': GDP is calculated based on the 'national boundary principle' and GNP is calculated on the 'national principle'. In the West, the use of GNP has a long history. Following the publication by the United Nations of the SNA in 1968, which used GDP, Western countries replaced GNP with GDP. However, since GNP placed greater emphasis on income, the World Bank still used GNP to measure the income level of various countries, but it was renamed gross national income (GNI).

4 Deng later said that, when I mentioned this matter, I was thinking of Mr Masahiro Ohira, who inspired us to set the growth target of quadrupling the GDP by the end of this century.

than US\$8,800. According to the World Bank's country classifications by income level, China went from a low-income country to a lower-middle-income country (GNI per capita of US\$1,026–4,035 in 2015 prices) in 1998, and to an upper-middle-income country (GNI per capita of US\$4,036–12,476 in 2015 prices) in 2010. It is clear that during this process of sustained rapid growth, the core growth indicators and the corresponding economic growth plans are both centred on GDP.

There are several reasons why understanding of GDP in China has gone through such a transformation.

First, the clarification of the CPC's position on economic development during the primary stage of socialism has been developed and enforced. This process included Deng Xiaoping's view that development is the absolute first principle (Deng 2014), general secretary Jiang Zemin's 'Three Represents' theory (Jiang n.d.), Hu Jintao's 'scientific outlook on development' (Hu 2010) and Xi Jinping's 'thoughts on socialism with Chinese characteristics for a new era' (Hou 2017). China has always insisted on a dialectical historical materialist understanding of emancipating and developing productive forces. It has planned economic growth and development goals with GDP as the core indicator and promotes the doubling of GDP growth to catch up with leading economies.

The second reason for the transformation is the profound institutional change resulting from the reform and opening-up. The cultivation of a market mechanism has provided the economic basis for the use of GDP for national statistics and accounting, as GDP is a reflection of market economic activities. In addition, China's modernisation process has been combined with its globalisation. Both China's national economic accounting and its development targets must be compatible with international rules and standards, which propels the use of GDP.

Procedurally, China's acceptance of GDP has emerged from a fierce theoretical debate. Until the mid-1980s—during the transition from the planned to a market economy—China gradually unified and adopted the United Nations' SNA. This began first as pilot projects in a few provinces and cities (for example, Shanxi province, beginning in 1985). China then transitioned into using two sets of parallel accounting systems—one based on material production and one based on GDP. Finally, the SNA was fully adopted after 1987.

The GDP accounting system has its own limitations. First, exaggerated use of GDP to measure and explain economic and social development can lead to distortion of the economic growth model. We need to understand that we cannot use GDP to account for the totality of China's modernisation. GDP as a dominant measure is more effective in the primary stage of economic development. The limitations of GDP become more prevalent after severe economic shortages and long-term poverty

have been eliminated and when an economy has moved beyond the Malthusian trap. Without changing the development model led by GDP growth, it is difficult to avoid the 'middle-income trap'.

Limitations of GDP and proposal of a new concept of development

The GDP accounting system is rooted in science. The emergence and continuous improvement of this system have greatly enhanced the allocation and accounting of economic resources. From the starting point (production) to the end point (demand) of national economic activities, the system comprehensively reflects all segments in the national economy in production, allocation, exchange and consumption, as well as the economy as a whole. Over a long period, this GDP-based economic system matures and becomes difficult to replace. Economists Samuelson and Nordhaus (1995) claimed that GDP was the greatest invention by humankind in the twentieth century. However, if GDP is used exclusively to guide the development of a national economy without considering its limitations, it will inevitably cause serious problems.

First, GDP emphasises quantity and does not directly reflect differences in the underlying economic structure. The largest national economy in terms of GDP may be based on an extremely backward economic structure, thus distorting the relationship between economic growth and the quality of economic development. It may reflect a large amount of economic expansion with no qualitative structural upgrading or growth fuelled by the quantity of factor inputs with no increase in total factor productivity. Economic growth refers to scale expansion or growth of GDP. Development refers to structural upgrading. Structural optimisation is the essence of economic development. The real difficulty in economic development is overcoming structural conflicts.⁵ GDP expansion can be achieved at a rapid rate by over-relying on the expansion of factor inputs. Its easy achievement makes it handy as a short-term policy target, but this may aggravate deep structural imbalances in economic development, which in turn exacerbate short-term macroeconomic imbalances and severely limit long-term sustainable development.

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5 For example, in the first half of the nineteenth century, China's GDP accounted for more than 30 per cent of the global total, ranking the country first in the world. The reason it declined rapidly after 1840 was, among other things, because the structural quality was backward, the industrial structure was still dominated by traditional agriculture and the organisational structure of social production was still dominated by small family production. Compared with the industrial structure supported by the Industrial Revolution in Europe and the United States, the production social organisational structure is based on the modern capitalist enterprise system. There is a qualitative difference. For example, in contemporary high-income oil-exporting countries, the GDP level leads in both total and per capita terms. However, such an economy is deformed, and thus strictly speaking belongs to the group of high-income countries but does not belong to truly modern countries. When it comes to categories, such a state is often called not a 'developed country', but an 'oil-exporting country'.

Second, GDP as an accounting system reflects the flow of economic activities during a certain period (one year), while national wealth is the accumulation of the stock of economic activities over the long term. When using the GDP method, ignoring the characteristics of the economic flows will cause serious damage to the national economy, especially if the goals for economic activity are short term and wealth accumulation and sustainability are underappreciated.⁶

Third, the GDP accounting system reflects the market's economic behaviour measured in prices. Economic activities that do not pass through market transactions and have no market prices are difficult to include in the GDP accounting system, yet markets do not account for all economic activities. For example, services provided by the military, police and governmental departments use economic resources and generate output, but cannot be allocated through market mechanisms. Another example is domestic work. In principle, a considerable part of domestic work does not go through market transactions. Therefore, it is difficult to incorporate into the national economic accounting system. Further, if pursuit of GDP growth becomes the overarching objective, a great deal of economic activity and resource allocation not based on market mechanisms will be excluded from the system of national accounts and thus ignored; these areas may require development, but are excluded from the GDP-based system.⁷

Fourth, if one-sided economic growth and development only are emphasised, and comprehensive social development is ignored, there will inevitably be distortion of the modernisation process. Accounting and evaluation of modernisation should encompass other measures of social development, such as the impact of economic development on ecological protection, holistic development of human society and the relationship between economic development and the level of people's happiness.

In response to these realities, proposals have been put forward for indices such as 'green GDP', the Human Development Index and the 'Happiness Index' to supplement the GDP indicator system and provide a better guide for comprehensive societal development.⁸

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6 All the relevant economic activities of the investment project will be counted in the GDP of the current year, but all the economic activities for demolishing the project in the second year will also be counted in the GDP for the second year, but the accumulation of the accumulated wealth (stock) is zero, and at the same time during the process (flow forming) a large amount of economic resources are consumed, impairing the potential for sustainable development in the future.

7 Since the beginning of its reform and opening-up, China has carried out three economic censuses. In its census data, the component of GDP that has not been fully counted is 'services'.

8 'Green GDP', also known as the System of Environmental-Economic Accounting (SEEA), incorporates resources and environmental factors based on the existing national economic accounting. This is a very modern and advanced concept, but also very complicated. At present, no country in the world has established a sound and practical system of green accounting. The Human Development Index (HDI) reflects the level of human development in a country according to living conditions, educational level and level of affluence, measured by the three variables of life expectancy, years of education and per capita GDP. The 'Happiness Index' is published by the World Value Survey, which investigates political, economic, social, family, religious and many other issues, and ultimately comes down to the question: 'Are you happy?' This index is calculated by statistical processing of the respondents' answers (Liu 2005: Ch. 17, ss. 2–3).

The practical limitations of GDP as an accounting system are increasingly being recognised; its value is being questioned and improvements are being made.⁹ In the early period of China's reform and opening-up, its socioeconomic development was in an extremely backward state. Reducing poverty was the overarching agenda. Doubling the national economy in terms of GDP was an objective historical necessity. Surpassing the 'poverty trap' requires rapid economic growth. Under the prevailing economic development conditions, environmental protection and wider social developmental issues were secondary. The conflicts between these goals and economic development were still not very sharp. Therefore, under Deng Xiaoping's advocacy, GDP value indicators were used to plan the long-term development goals for the first time after the twelfth National Congress of the CPC in 1984. Formulating growth and development guidelines based on GDP was considered relevant and feasible.¹⁰ Overcoming the 'poverty trap' through GDP growth was consistent with the CPC's position of focusing on economic construction and prioritising development. The dialectical materialist conception of history was the basic supporting concept. The resulting sustained, high-speed economic growth profoundly changed China and brought about the concept of socialism with Chinese characteristics for a new era.

The constraints on China's social development in the new era have fundamentally changed, and these changes have brought new opportunities and challenges. China's development has come close to achieving the goal of 'national rejuvenation' while overcoming the middle-income trap, and it is now on its way to realising the government's stated goals of basic modernisation by 2035 and becoming a modern socialist country by 2050.

Old growth models cannot sustain balanced and coordinated development. On the supply side, the costs of labour, natural resources, environmental services and technological services have risen dramatically. Previous absolute comparative advantages have gradually disappeared. On the demand side, there is weakness in purchasing power and overcapacity. Therefore, management of stable and balanced growth, cost-induced inflation, adequate employment, long-term sustainable development and comprehensive social growth all require a fundamental transformation of the development model. China must shift from high-speed growth that has depended mainly on the expansion of factor inputs to high-quality

9 For example, US presidential candidate Robert Kennedy pointed out in the early 1960s: 'Yet the gross national product does not allow for the health of our children, the quality of their education or the joy of their play. It does not include the beauty of our poetry or the strength of our marriages, the intelligence of our public debate or the integrity of our public officials' (quoted in Rogers 2012).

10 The twelfth National Congress of the CPC continued to propose a target of quadrupling total economic output in the last 20 years of the twentieth century measured by gross industrial and agricultural output values, and later switched to the goal of quadrupling GNP proposed by Deng. In the end, the party clearly stated that, in accordance with international practice, the GDP approach to planning had been adopted (Liu and Cai 2006: Ch. 1).

growth that depends mainly on efficiency. There is a need for a new development philosophy that will define the path and guide the practice for a new economic development framework, culminating in a new concept of development.

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