China’s Macroeconomic Situation under the “Dual Carbon” Goals

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Most standard economists, especially macroeconomists, do not take ecological and environmental issues very much into account when conducting economic analysis. Many economists do not even think of environmental problems as real problems. They feel that environmental, energy, resource, and other problems can all be solved automatically by the market, and many simply regard environmental problems as external. At present, standard economics mostly looks upon environmental issues with a kind of economic “imperialistic” thinking, and simply introduces standard economics theory into the environmental field, regarding it as a branch or marginal discipline. Meanwhile, some of the scholars engaged in the study of sustainable development economics are using different analytical frameworks and discourse systems to study environmental issues. This causes mainstream economics and sustainable development economics to lack a shared logical foundation, so that it becomes difficult for the two fields to engage in dialogue. In fact, it would be difficult to explain and solve the eco-environmental crisis facing the world simply by introducing standard economic methods into the eco-environmental field. To solve eco-environmental problems, we should not simply introduce theories and methods from standard economics into the eco-environmental field, but rather rethink some basic issues in economics, including value theory and the scope of analysis, from the perspective of eco-environmental crisis.

1. Reflections on Macroeconomics

Macroeconomists usually do not think very much about the environment, but now they are now very concerned about the “dual carbon” issue (China’s “dual carbon”

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goals, sometimes known as the 2030/2060 goals, described by President Xi Jinping, are to reach its carbon emissions peak in 2030 and become carbon neutral before 2060). However, they care about the “dual carbon” goals not because they really care about environmental issues, but because they may affect economic growth, which for macroeconomists is the primary goal. Nowadays, when macroeconomists often discuss how to balance the relationship between the “dual carbon” goals and growth, the underlying assumption is that “dual carbon” and economic growth are in conflict. The basic argument of some macroeconomic analysts is that because carbon reduction will affect economic growth, and economic growth at present is not good, it is necessary then to relax somewhat the “dual controls” (i.e., intensity and total amount control) and dual carbon goals.

In essence, the relationship between dual carbon and growth is the relationship between the environment and growth. In past theory, it was always believed that the relationship between the two is an inverted U-shaped curve, i.e., the environment will be sacrificed in the process of economic growth. When the economy develops to a certain level and can afford the cost of environmental governance, then the environment can be improved. Many studies now show that although this inverted U-shaped cure exists in some developed countries, it is not a universal law of economic development. In fact, the curves differ from one country to the next. As for carbon emissions, more than 130 countries, of which more than 70% are developing countries, have made carbon neutrality commitments. This means that as new energy sources are being rapidly developed, economic development can be launched from a low-carbon position, and there is no need to take the inverted U-shaped path of “high emissions first, emissions reductions later.” However, many studies and policies are now based on this inverted U-shaped traditional understanding. The so-called “pollute (develop) first, clean up later” path of development is also based on this understanding.

China has long stepped away from the traditional “pollute first, clean up later” thinking on development. That is, it has stepped away from past conflicts between development and environmental protection, then went to an accommodation of both
equally, and then to the proposals from the 18th National Congress of the CPC (2012) on eco-civilization, green development, new development concepts, “lucid waters and lush mountains are invaluable assets,” and other new ideas. It is with these new development concepts that, ever since the 18th National Congress, China has taken great measures to protect the environment, no longer worrying that protecting the environment will affect economic growth. The facts prove that China’s stringent environmental protection policies after the 18th National Congress have not affected economic growth, but have instead created a large number of new green growth opportunities and improved the quality of economic development. However, after the power outages in the second half of 2021, some people, based on the traditional understanding that environmental concerns are in conflict with development, took it for granted that the “dual controls” and “dual carbon” goals were the cause. In fact, if you delve deeply into the issue, you will find that the power outages basically had nothing to do with the “dual controls” and “dual carbon” policies.

In the Great Depression of the 1930s, when there was a serious shortage of effective demand, and it was difficult for standard microeconomics to explain this imbalance of supply and demand, that is when Keynesian macroeconomics came into being. The primary goal of macroeconomics was to solve the lack of effective demand in order to maintain economic growth and price stability. However, the problem of insufficient effective demand actually appeared long before the transition from an agricultural society to an industrial society. During the agricultural era, people developed the habit of thrift due to low productivity, and people’s total consumption was limited by physiology. However, large-scale production after the Industrial Revolution brought a leap in productivity, while frugal consumption habits and physiological constraints on consumption became obstacles to industrialization. Therefore, an important prerequisite for the transition from an agricultural society to an industrial society is to drive a huge shift in social psychology and consumption habits. Linking material consumption with satisfying psychological needs completely changed the relationship between people and commodities, and gradually it transformed people from “thrifty citizens” to “hungry consumer animals.” Therefore,
the modern economy is based on consumerism and excessive consumption, and at this stage, the solution to the lack of effective demand is basically to stimulate people’s desire through market forces.

During the Great Depression, it was difficult to rely solely on the spontaneous power of the market to solve the large-scale shortage of effective demand with high productivity levels, so the US government implemented Keynesian policies, directly intervening on a large scale. The root of the lack of effective demand lies in the contradiction between the finiteness of individual consumption in the biological sense and the infinity of capital chasing profits. When the effective demand is insufficient, there are two approaches to solving it. The first is to transform the content of the supply, i.e., from meeting the already saturated material demand to meeting people’s demands for things other than the material that is in short supply. This is the “green transformation” that is being emphasized nowadays—it can be understood roughly as an emerging service industry. The second approach is to use governmental means to stimulate demand without changing the original direction of development. We can make a metaphor here. After people have eaten and drunk enough, their demand for food and drink will decrease, and the economy will not be able to grow. At this point, one approach would be to move to a healthy lifestyle, since this also generates demand and brings economic growth. However, this approach requires a systematic and profound transformation in consumption habits, production and consumption of content, business models, etc. Another approach would be to get people to eat more, get fat to the point of illness, and then go on to lose weight and heal. Because this approach would generate “economic growth,” the process may look fine, but the consequences to well-being and the environment are poor. In fact, a considerable part of so-called modern economic activity is essentially “digging and filling ditches” in the Keynesian sense in order to generate GDP. It only takes different forms.

Therefore, we must reflect deeply on the issue of economic growth and return to the original intention of development. The fundamental purpose or original intention of development is to improve people’s well-being; the GDP is only a means to achieve that end. The current global consensus and action on carbon neutrality
marks the final curtain of the traditional industrialization model formed after the Industrial Revolution and the debut of a new development paradigm. Correspondingly, research paradigms have to change. The existing content of standard economics is largely a product of the traditional industrial age, which it serves. We need to rethink some fundamental issues of economics, including value theory and analytical frameworks. Once we think about these fundamental questions, we see that much of the current conventional wisdom about the relationship between environment and growth is no longer reliable, and the corresponding policy implications also change.

2. The Biggest Problem: Maintaining Strategic Focus on Green Transformation

The “dual carbon” goal is a “major strategic decision made by the central government after careful consideration.” Neither a short-term tactical consideration, nor the result of international pressure, it came from the realization that the traditional development path is unsustainable, and that the new green development represents the direction of the future. It relates to the great rejuvenation and sustainable development of the Chinese nation. During the first 40 years of reform and opening, up to the present, an important reason for China’s miraculous development was that it learned from the development experience of industrialized countries. However, this traditional development model will encounter the so-called paradox of modernization. That is, this traditional industrialization model has enabled a small portion of the world’s population to live a very prosperous life, but once it expanded throughout the world, it brought all kinds of problems, such as the climate change crisis, for example. The achievement of the second of China’s two centennial goals (to achieve basic modernization and turn China into a modern socialist country by the time the People’s Republic of China celebrates its centenary in 2049) is not a simple extension of the economic development model of the past 40 years, nor is it a copy of the modernization model of Europe and the United States, but a fundamental change in the development paradigm. As I have mentioned above, many of the economic
theories of today are products of the traditional industrial age, which they serve. We are now facing the most comprehensive and profound paradigm shift in development since the Industrial Revolution. Just as we cannot use theories and ways of thinking from the agricultural age to think about problems of the industrial age, we need to think of present and future development from outside the framework of the traditional industrial age.

Meeting the dual carbon goals will be a process of creative destruction. At present, China emits about 10 billion tons of carbon dioxide annually. When carbon emissions peak before 2030, the emissions should not be much higher than they are now. The dual carbon goals mean that many industries, including automobiles and energy, will be rolled over. The timing will provide many industries in China the opportunity to change lanes and pass their slower competitors. If you look at the example of new energy vehicles and new energy in China in 2021, you can clearly see the relationship between the dual carbon goals and economic growth. In 2021, China’s new energy vehicle sales will exceed 3.5 million, an increase of about 1.6 times year-on-year. It is precisely because of the explosive growth of new energy vehicles that in 2021, Chinese automobiles will end the three consecutive years of decline in production and sales since 2018. Behind the new energy vehicles is a huge infrastructure and industrial system, so they will become an important new source of economic growth. In addition, new energy and other such fields are also showing a rapid development trend. As can be seen from the example of automobiles, if there are no new energy vehicles, the traditional automobile industry will see negative growth. With new energy vehicles, the automobile industry becomes a new engine driving China’s economic growth. Behind the explosive development of these industries is the driving force of the dual carbon goals.

The dual carbon goals present a major strategic opportunity for China’s development, but there are also corresponding risks and challenges behind it. Carbon neutrality is not a simple energy transition issue, nor does it consist of simply filling the “gap between new energy supply and total energy demand,” but is rather a systemic transition issue of development paradigms. Economic systems under the
traditional industrialization model, including their economic structures, financial systems, employment systems, and so on, were all largely formed on the basis of fossil energy. If the energy transition is too fast and not coordinated with transition in other fields, it may bring great risks. Therefore, “building first and then breaking” is very critical; shock therapy cannot be used to achieve the dual carbon goals. In addition, under the carbon neutrality target, market expectations will change greatly, and entries on the balance sheets of governments, companies, and residents will have to be repriced. This will bring great opportunities and risks, especially for some regions, businesses, and residents.

3. Strengthening Overall Coordination and Clarifying Overall Planning Policies

First, environmental protection should be incorporated into the main policy objectives of macroeconomic growth, and the dual carbon goals should be made into a new driving force for economic growth. When economic growth slows, it is especially important to maintain strategic focus. The results of a large-scale online survey that we recently conducted showed that while China’s GDP growth rate has slowed in recent years, people’s well-being has risen—in other words, there has been a divergence between people’s well-being and economic growth. These facts are not very consistent with traditional economic theory. GDP is important as a means of development, but more importantly, GDP growth can improve people’s well-being. China’s development strategy has shifted from GDP-oriented growth to development centered on people’s well-being, which is exactly the original intention of development.

Second, several of the traditional macro-policy objectives, such as increased GDP, prices, employment, and international incoming and outgoing payments, should have overall coordination. In the new complex domestic and international economic situation, the difficulty of coordinating these objectives is further increased. In particular, it is necessary to avoid the old path of economic growth that relies on stimulating investment, consumption, and exports under the traditional development
model, and also to avoid the green Keynesian path that consists simply of expanding so-called “green investment.”

Finally, the coordination of various environmental policies should be multidimensional. Now more attention is being given to the dual carbon goals. However, “carbon reduction for the sake of carbon reduction” may cause eco-environment resource problems and other problems, and in some cases, it will instead exacerbate unsustainability. Therefore, carbon reduction must be incorporated into the overall layout of the building of an eco-civilization, so that environmental goals relating to carbon emissions, environmental protection, and resource utilization can boost one another.

Translated by Thomas E. Smith