

The Investment and Financing Support of Circular Economy of China

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Abstract: The fiscal investment and financing refers to the government unifies various idle funds, in particular the private sector together, by way of national credit and they are managed by the financial sector to achieve certain objectives of industrial policy and fiscal policy. And the fiscal sector adopts the way of direct or indirect loans to support the development of production and business activities. As an important realization means of allocating resources in market economy, the fiscal investment and financing has a unique effect in promoting the economic growth, adjusting and improving the economic structure, strengthening the macro-control capacity. Therefore, the government should increase the support of fiscal investment and financing to the development of circular economy. [Ding Xi. **The Investment and Financing Support of Circular Economy of China**. Researcher. 2012;4(3):5-8]. (ISSN: 1553-9865). <http://www.sciencepub.net>. 2

Key words: circular economy; financing; fiscal investment; tax policy

1. Introduction

In 2010, China sustained a relatively rapid growth of its national economy while overcoming the adverse impacts of the natural disasters and the global financial crisis. Its GDP grew by 10.3% compared with the last year to 39798 billion RMB yuan, with the primary, secondary and tertiary industries increasing 4.3%, 12.2% and 9.5% respectively. However, with a vast population and a low level of economic development, China still faces a rather arduous task of development. By the end of 2010, the total population in the mainland was 1.339 billion. The per capita GDP still ranked among low to mid-income countries. Furthermore, the nature resources and the energy sources are becoming less and less. The development pattern of the circular economy is just the right approach to solve this contradiction. The so-called circular economy, which is different from the open-loop linear economy consisted of “resource- production-consumption-disposal”, is the sustained economic growth model which regards the reduction, reuse and recycling as the basic principle according to the rules of ecology and comprehensive utilization of resources, features low consumption of energy, low emission of pollutants and high efficiency and organizes economic activities to close-loop process of “resource-production-consumption-regenerated resource”.

The development of circular economy is a complex system engineering which involves resource, technology, ecology, environment, social factors and it needs the support of investment and financing, in particular, the number, methods, structure and use benefit of capital investment have a direct impact on the results of circular economy. In addition, circular economy can produce another product-a good ecological environment which belongs to public goods and has the positive external effects besides the normal product, but its

suppliers can't get compensation from the consumers. Therefore, the characteristic of externality determines its desire for investment and financing. The Chinese government doubles its investment in the circular economy year to 2 billion yuan (USD300 million) to support the national policies of energy conservation and emission reduction in 2011. The cumulative value of the circular economy industry was 1 trillion yuan (USD150 billion) as of the end of 2010, and it is forecast to grow at least 15 percent annually during the 12th Five-Year Plan (2011-2015) period. He Bingguang, a director-general level official at the department of resource conservation and environmental protection of the National Development and Reform Commission (NDRC) said: the NDRC will use financial support and tax breaks to draw investment into the circular economy, which will benefit companies and society. Most of the spending will go into the construction of industrial parks, the transformation of urban mining industries, clean production, food waste recycling and staff development. According to He, China achieved much in the energy-conservation sector during the 11th Five-Year Plan period (2006-2010) and the country will step up its efforts to cut carbon emissions and save energy during the current five-year plan. The circular economy is a national strategy in China, “No other country has given it such a high priority. We are now filing and summarizing the 60 cases of successful development modes of the circular economy in the past five years and will publish the final report in two months.” said He. In October 2010, China approved the guiding principles of China's 12th Five-Year Plan for National Economic and Social Development (2011-2015) that seek to promote “inclusive growth,” which means ensuring the benefits of economic growth are spread to a greater proportion of Chinese citizens. The plan's key themes are rebalancing the economy,

reducing social inequality and protecting the environment. Overall, under the current Five-Year Plan, China will invest US\$ 468 billion in greening key economic sectors, compared to US\$ 211 billion over the last five years. The focus is on three sectors: waste recycling and reutilization; clean technologies; and renewable energy.

But the investment and financing of circular economy in China also exists some problems. For example, the resource tax levy was too narrow and inappropriate in the resource extraction areas, circular economy main investment has not yet achieved the diversification. So the government should adopt the following measures.

2. The Investment Support of Circular Economy

2.1 The government should optimize the investment structure, and guide the development of circular economy

The national investment should focus on the projects of technological innovation and industrialization which have the strong welfare and strengthening the infrastructure construction of circular economy. The macro-control departments of government at all levels should regard the energy conservation, water, land, materials and the comprehensive utilization of resources as a key area in the development and implementation of investment plans. The government should make the direct investment or give a certain degree of capital subsidy support to the major infrastructure projects of circular economy.

2.2 Improving the tax policy which is conducive to the development of circular economy

The government tax policy is one of the most effective means of economic regulation, the change of taxes and tax rates can promote the investment and financing system which is diversified and social establishment of circular economy. First, adjusting the import and export tax policies of energy-intensive products. The import tax and VAT should be raised to the apparatus, equipment and technology which may lead to high energy consumption. In the export tax, the export tax rebates for high energy consumption products should be reduced or eliminated in the context of international permit and make limit management to such goods. The production activities which are not conducive to environmental protection should be levied environmental tax and the enterprise which takes up environmental pollution control services, the low tax or zero tax rate should be levied. Second, the preferential tax policies should be improved. The pre-tax deduction ratio of R&D cost of recycling and utilization technology of renewable resource should be raised. It can be adopted the accelerated depreciation method

depreciation to the enterprise which produces the recycling and utilization equipment of renewable resources or the recycling and utilization enterprise.

2.3 Establishing a special fund of circular economy

The central government and various departments should establish a special fund of circular economy which is devoted to specific areas of development of circular economy. For example, it is dedicated to pollution control, sand control, specific energy binding and so on. The use of special funds can be taken two ways: first, the way of free financing. It is mainly used for weak profit and strong public welfare projects. In addition to standards formulation must be supported fully by the national funds, the project undertaking unit or the individual must provide matching funds more than the free financing. Second, the way of loan interest subsidies. It is mainly used for the renewable energy development projects which are listed in the instruction catalogue of national renewable energy industry development and suitable for the credit conditions. The interest subsidies can be arranged on the premise that the bank loan is in place and the project units or individuals have paid the interest. The provincial finance should establish the special funds of energy and resource conservation, which are dedicated to the policy research, basic management, technology promotion, demonstration projects, publicity and training work of energy and resource conservation and circular economy. Meanwhile, the provincial enterprises should arrange key energy and resource conservation projects according to a certain proportion in the special funds of innovation, technology fees, special funds for SME development, agricultural resources and environmental protection, forestry ecological benefits to support development of circular economy. The municipalities and counties should also arrange certain funds to support local energy and resource conservation and the development of circular economy in the fiscal budget.

2.4 Raising funds through the various channels for the circular economy construction

Fiscal support for the development of circular economy is not only funding, but also including policy guidance and the construction of the external environment. Therefore, the reform of investment system of circular economy should be promoted actively, the funds for circular economy construction should be raised through various channels. First, the "green" bonds should be issued. The interest rates should be reduced and the recovery period should be extended correspondingly to form a long-term stable mechanism and investment and financing environment of the development of circular economy to avoid the short-term behavior of investment and financing of the development of circular economy in the system and

mechanism. For example, the Beijing Jinyu Group Co., Ltd. officially issued the corporate bonds “Jinyu 07 debt” on May 24, 2007, which is the first public corporate bonds. The \$800 million fund which was financed in the capital market will be used for the green projects and it will help develop the circular economy in Beijing. Second, the circular economy lottery should be issued. Lottery is a good way to raise funds, it does not need servicing. Moreover, China’s lottery market has great potential, the residents have adequate fund and capacity to pay. Third, the foreign investment should be attracted to the important projects of circular economy. The special nature of investment in circular economy should be given full consideration to and the duty-free or low-tax policy should be adopted to increase the marginal returns of foreign investment in circular economy. Currently, there are some world famous environmental groups such as the French Weili Ya Water, Thames Water UK, entered the Chinese market and established representative offices in China. And China and Germany have signed a cooperation agreement on the development of low-carbon energy projects in 2009 and the German Bank for Reconstruction provides € 62 million loan to support China's green economic development projects. Among them, the government should focus on the introduction of direct investment from multinational corporations, because its investment project scale is generally large and it can bring the most advanced technology, management experience and export markets. The funds from various channels should be integrated through the planning guidance, co-ordination arrangements, clearing responsibilities, and project driven approach to improve capital efficiency.

3. Actively Guiding the Involvement of Financial Institutions

Finance is the core of economy. It has the advantage in the guiding capital flow and distributing resources. So the financial support is vital to the circular economy development. The Standard Chartered Bank, Bank of America and HSBC make a useful innovation test in bank loans, direct investment and financing, carbon credits trading, carbon options and futures around the circular economy. But China’s circular economy development is in the primary stage. So the following measures should be adopted:

3.1 Strengthening financial support of national policy bank on the circular economy

The circular economy loans of the China Development Bank started in December 2006. The National Development and Reform Commission and the China Development Bank signed the “ work arrangements of co-promoting the development of circular economy”. Under this agreement, the China

Development Bank will provide financial and credit support to the circular economy pilot projects. In addition to its focus on the loans to support the circular economy, they also accept the loans which are issued by the international financial institutions to the circular economy project of China. The support range of the China Development Bank include: industrial pollution control, urban environmental protection, rural environmental protection, watershed regional pollution control, ecological environment protection and environmental services which are operated according to the market economy. Because the investment of circular economy has the characteristics of high stakes, long cycle, high-risk, low income or no income, the investment of circular economy has always been dominated by fiscal department. The funds of China Development Bank have the characteristics that the capital quantity is large and the term of loan is long. The circular economy loan period of China Development Bank can generally be up to 15 years, and the loan period can be extended to 20 years in the special circumstances. The China Development Bank should focus on the following key aspects: first, supporting the infrastructure construction financing which is related to environment and resources of the circular economy construction. Second, using policy finance activities to affect the circular economy development in the rural sector to promote the full increase of agricultural economy, ecological and social benefits. Third, using the low-cost policy capital to support the financing of middle and small enterprises which belong to environmental protection class. Fourth, giving support to high-tech industries which belong to environmental protection class.

3.2 Establishing the special circular economy development banks

The regional special circular economy development banks should be established to make up for the shortage of government investment and financing. The regional special circular economy development banks can be supported by the fiscal capital and financial bonds to achieve two objectives, namely, promoting the development of backward areas and the balance of regional economic structure, second, providing the policy capital support to the urban circular economy development. Of course, the circular economy promotion can also be established to promote the development of circular economy. It can both solve the early stages of financing of circular economy enterprises through specific financial products and promote the local government make the goal of circular economy into urban development planning to coordinate the national financial support system of circular economy development.

3.3 Developing the commercial bank financing system of circular economy

First, continuing to rely on the existing commercial banking system and provide support and constraints to the circular economy. The commercial bank should set up different loan policies based on the characteristics of local circular economy development. For example, the commercial banks should grant a lower interest rate, extend the credit period, increase the loan amount, or relax repayment conditions to the customer or item that develops the circular economy, protect the natural environment and maintain ecological balance in the credit review and decision-making process. It should be limited through the measures of no loan, higher interest rates and compulsory repayment for the random investment behavior of ignoring the natural environment and ecological balance.

Second, the commercial banks should provide credit support actively based on national investment policies and regulations to the pilot units of circular economy which are set up by the state. In addition, the SME Development Bank can be established. It can rely on the existing SME financing system to provide other support which is related to the circular economy.

In addition, China should take full advantage of the international financing. China may seek loans, inter-governmental loans and international banking organizations, special loans from the international capital markets and international financial institutions to provide financial support for the circular economy development. And the innovative financing models can be adopted such as BOT and TOT cross-border financing.

4. Results

China has become the second largest economy in the world and, in terms of both its size and achievements, has increasingly deep impact on global socio-economic development and pattern. The government should optimize the investment structure, and guide the development of circular economy,

improve the tax policy which is conducive to the development of circular economy, establish a special fund of circular economy, raise funds through the various channels for the circular economy construction, strengthen financial support of national policy bank on the circular economy, establish the special circular economy development banks and develop the commercial bank financing system of circular economy.

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