

Research Overview on Anti-Poverty Theory of Development Economics

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Abstract. Development economics regards Anti-poverty problem as the main study object, and forms many anti-poverty theories and models such as the Big Push Theory and Dual Economy Model, which promote the development of the world anti-poverty practice and research greatly. But there are not enough overall grasps of the anti-poverty issues, too much emphasis on material poverty and a lack of spiritual poverty and ultimate concern for human beings.

Introduction

Development economics is a new-rising subject emerged after the Second World War, which mainly researches the problems faced by developing countries, such as shaking off poverty and backwardness, realizing economic development and so on. Though many subjects have researched the anti-poverty problem from different aspects, only development economics takes anti-poverty problem as the main research object to form multiple anti-poverty theories and models. These theories and models as well as their wide application in economic development practices of developing countries have formed the prosperous era of development economics in the middle of last century.

Overview on the Main Anti-poverty Theory of Development Economics

The development economists have established a series of famous theories and models in view of poverty causes and mode of shaking off poverty, the representatives include Paul Rosenstein, Francois Perroux, Ragnar Nurkse, William Arthur Lewis, Simon Smith Kuznets, Albert Otto Hirschman, Gunnar Myrdal, Thodore W. Schults, etc.. Wherein, Gunnar Myrdal, William Arthur Lewis and Thodore W. Schults have made special contributions on innovative research on poverty and development problems as well as development economics, who have won the Nobel Economics Prizes in 1974 and 1979. [1]

Paul Rosenstein's "Big Push" Theory. The "big push" theory was proposed by Paul Rosenstein-Rodan in the article of Several Problems Existed in Industrialization of The Countries in Eastern Europe and Southeast Europe in 1943. This theory holds that the developing countries should lay emphasis on realizing industrialization in order to shake off poverty fundamentally, while investment is the power of industrialization. For the purpose of overcoming the problems widely existed in economy, such as indivisibility of investment, indivisibility of supply and savings, indivisibility of demand, it is needed to conduct overall and synchronous "big push", namely, conduct large-scale investment in the whole industry or the whole national economy sectors thus to promote average growth of these sectors and promote the rapid and comprehensive development of the whole national economy. In the preliminary stage of industrialization, the developing countries should invest mainly in electric power, transportation and telecommunications infrastructure as well as mutually-connected light industry sectors. Owing to the long investment circle of infrastructure, the big push process must be organized for implementation based on government plan instead of non-market regulation.

In reality, it is difficult to find that one country promotes its industrialization process through comprehensive and large-scale investment. Therefore, the "big push" theory is out of reality.

Francois Perroux's Growth Pole Theory. The growth pole theory was firstly proposed by French economist Francois Perroux in 1950. This theory holds that economic growth firstly appears on some growth points or growth poles based on different intensities, and then transmits to other sectors or regions gradually. Therefore, special geographic space should be selected to be the growth pole thus to drive economic development. Wherein, growth pole includes two aspects: firstly, one certain promotion-type industry in economic space; secondly, agglomerated town appeared based on geographic space, namely, growth center. Since the 1960s, people have conducted research based on the two main lines, including sector-based growth pole (promotion-type industry) and space growth center (agglomerated town).

The growth pole theory has large influence and attraction to developing countries, many of which rely on this theory to formulate regional development plan, arrange investment layout and industrial distribution, and establish regional special economic zones [2]. Though this theory describes the positive influence and driving role of "development pole" on itself and the economic development of other regions, it neglects the negative influence of "development pole" on the development of other regions.

Ragnar Nurkse's Vicious Circle Of Poverty and Balance Growth Theory. In 1953, Ragnar Nurkse put forward the vicious circle of poverty in the book of Capital Formation of Undeveloped Countries, which holds that the long-term poverty of developing countries is owing to the mutually-connected and interactive "vicious circle" in economy. The vicious circle of poverty includes two aspects: in view of supply, it refers to "low income-low saving capability-low capital formation-low productivity-low output-low income"; in view of demand, it refers to "low income-low purchasing capability-insufficient investment attraction-low capital formation-low productivity-low output-low income". The supply circle and the demand circle connect with each other, which is difficult to be broken, therefore, the long-term poverty of developing countries is difficult to be changed.

The vicious circle of poverty holds that capital shortage is the root of long-term poverty faced by developing countries and the main barrier of economic development. Accordingly, Nurkse raises the channel to shake off poverty, namely, conduct investment in various sectors of national economy comprehensively and extensively thus to realize balance growth strategy. Besides, Nurkse also thinks limited investment of individuals can not break through the vicious circle of poverty, but instead, enough quantity of capitals must be invested in various sectors, and each sector should make investment and realize development according to different ratios, wherein, the investment proportion can be determined in accordance with the demand price elasticity and income elasticity of the products of various sectors.

William Arthur Lewis's Dual Sector Model. Dual sector model was the development economics model raised by William Arthur Lewis in Economic Development of Unlimited Supply of Labour in 1954. William Arthur Lewis thinks the developing countries exist with the dual economy structure: firstly, the non-capitalism sector conducting production based on traditional production methods and having low labor productivity, representative by agricultural sector; secondly, the capitalism sector conducting production based on modern methods and having labor productivity and salary level, representative by industrial sector. A large number of surplus workforce exist in rural areas, and the salary level of industrial sector is higher than that of rural labor forces. The economic development of developing countries is to change the dual structure, attract surplus population to urban industrial sector through high salary regulation thus to realize industrialization.

This model stresses the structural difference between modern sector and traditional sector, combines the economic growth process with industrialization process and population mobility process tightly for analysis, which conforms to the real situation of developing countries. But William Arthur Lewis doesn't estimate the urban unemployment problem existed in the labor force mobility processes of the two sectors.

Simon Smith Kuznets' Curve Theory. Kuznets' curve theory was proposed by the American economist Simon Smith Kuznets in 1995. He conducts analysis on the empirical materials related to

economic growth and income difference of 18 countries, demonstrates the changing relationship between income imbalance and economic growth with the time going. He thinks the gap between the rich and the poor in the countries which are in the economic growth processes will experience a process of enlarging first and then shortening. In poverty-stricken countries, the economic growth will enlarge the gap between the rich and the poor, while in rich countries, the economic growth will shorten the gap, presented by an “inverse u curve” of upward buckling and downward buckling in diagram.

This theory stresses that the economic focus must be transformed from agriculture to industry in order to realize economic growth. In agricultural society, the income gap between people is small, industrialization causes enlarging income gap. However, the mass education has become popular with economic development, the income of low-income groups will be increased rapidly, besides, this group will obtain more rights of speaking and can affect the government policy.

R. R. Nelson’s “Low-Level Equilibrium Trap” Theory. In 1956, the American economist R. R. Nelson published *A Kind of Low-Level Equilibrium Trap of Undeveloped Countries*, based on the mathematical model to analyze the relationship between the increase of per capita capital of developing countries, population growth, increase of national income and per capita income, raised the cyclic process mechanism of poverty self-sustaining. He thinks population growth rate is sensitive to the national income level per capita. If the life is poverty-stricken, the death rate will certainly be high thus to restrict the population growth. Once the growth rate of per capita income is faster than that of population, the people’s living standard will be improved, the death rate will be reduced and the birth rate will be increased thus to accelerate population growth. Moreover, the increasing population growth rate will recover the original level of per capita income and enter the low-level trap again.

This theory highlights the complexity of poverty which is a highly-stable balance phenomenon, and it holds that the excessive population growth of developing countries is the trap to hinder rapid increase of per capita income. Only through large-scale investment of the government or external capitals can the investment and output increase surpass the population growth, can the balance trap be broken to realize large increase of per capita income and economic growth.

Harvey Leeibenstein’s “Critical Minimum Effort” Theory. In 1957, Harvey Leeibenstein discussed the channels for developing countries with insufficient capitals to shake off poverty in the book of *Economic Backwardness and Growth*, and put forward the “critical minimum effort” theory. He admits the existence of “vicious circle of poverty” or “low-level equilibrium trap”, and thinks the investment of developing countries is lower than the minimum critical quantity needed for economic development. In order to break through the vicious circle between income and poverty, it is needed to make large investment in the preliminary stage of economic development according to the characteristics of large population and high growth rate thus to make the investment level surpass the population growth and increase the per capita income. The investment rate level is “critical minimum effort”, and the developing countries have difficulty to shake off poverty without this minimum effort.

This theory notices the positive role of investment scale on economic development and the threat existed in economy of developing countries owing to population pressure, which has certain enlightenment significance for developing countries to formulate economic development strategy. But it overstates the importance of capital formation to economic growth but neglects the role of other factors to economic growth.

Gunnar Myrdal’s “Circulated Causation” Theory. The circulated causation theory was proposed by Swedish economist Gunnar Myrdal in 1957, which was developed and crystallized to be model by Kaldor and Dickson afterwards. Gunnar Myrdal thinks in a dynamic social and economic development process, various factors connect and affect with each other with reciprocal causation, therefore, a factor change will cause the change of another factor accordingly, and the change of subsequent factor will adversely strengthen the change of the previous factor, and will cause the economic development to carry on with the development of the leading factor thus to form accumulative circulated development trend. Besides, he determines the leading factor of the

poverty of developing countries as per capita income level. Because the per capita income level of developing countries is low, the living standard, nutrition level, medical treatment level and education level of labors will be low, which further causes low labor productivity thus to bring low income level, as a result, the developing countries will be trapped into the circulated dilemma of low income and poverty.

In view of solutions, different from Nurkse, R. R. Nelson and Harvey Leeibenstein, Gunnar Myrdal doesn't stress large-scale investment only but advocates to realize income equality and increase the poor's consumption through reform in right relation, land relation and education system thus to enhance investment attraction and increase savings for capital formation, enhancing the productivity and output level, and enhancing per capita income in developing countries.

Albert Otto Hirschman's "Trickle-Down" Effect and Imbalanced Growth Theory. The "trickle-down effect" was firstly raised by American development economist Albert Otto Hirschman in the article of Investment Policy and "Duality" of Developing Countries in 1957. This theory holds that based on the regulation of market mechanism, the benefit from economic growth will gradually flow to the low-income class automatically, namely, no special treatment is given to the disadvantaged groups, weak groups or poverty-stricken areas in the economic development process, but the developed groups or regions benefit the disadvantaged groups or poverty-stricken regions through consumption and employment thus to drive them to realize development and become rich. This theory include the main contents: firstly, economic growth is the most important factor for backward developing countries in the development process. Secondly, growth and fairness are incompatible within certain period, therefore, it is needed to accept the polarization of income distribution in order to give priority to economic growth, otherwise, the economic growth potential will be affected. Thirdly, rely on economic growth to realize economic prosperity instead of social policy invention, and then the economic development will benefit the disadvantaged groups through "trickling" of market mechanism thus to moderate and even shake off poverty.

The practices of many developing countries show that the trickle-down effect is limited largely. Economic growth is the strong power to reduce income poverty, but the relation between economic growth and income poverty reduction is not formed automatically [3], income poverty reduction will certainly involve the social wealth distribution, if the government gives no intervention but allows the "trickle-down effect" based on the market economy to affect spontaneously, the rich will become richer while the poor will become poorer, and the disparity between the rich and the poor in the whole society will further be enlarged.

Albert Otto Hirschman also put forward the imbalanced growth theory in the book of Economic Development Strategy in 1958. This theory centers on full use of main scarce resources, which involves three parts such as principle of "induced investment maximization", "linkage effect" theory and principle of giving priority to develop "Import substitution industries". He thinks the development path is an "imbalanced chain", which connects to other sectors from the leading sector. The government policy targets at finding a kind of induction mechanism to motivate various resources to a maximized extent, namely, promote economic development through imbalance. In this process, selecting the investment priority is the key. When one country selects proper investment project for prior development, it should select the industry with linkage effect, while in the industry with linkage effect, it should select the industry with largest linkage effect for prior development, namely, select the department with induced investment maximization for prior development, which is the core of the imbalanced development theory [4]. The induction effect will be stronger if giving priority to develop the latter one in view of the social indirect capital and direct productive activity. And for the various sectors contained in the direct productive activities, giving priority to develop the sector with strongest induction effect.

This theory stresses the importance of large-scale investment and necessity of reasonably allocating limited resources, which provides important theoretical basis and development channel for developing countries to find out breakthrough for economic development. However, the imbalanced development between industrial sectors may enlarge the industrial difference thus to cause economic development incongruity or structural imbalance.

Walt Whitman Rostow's Growth Stage Theory. According to the two books of American economist Walt Whitman Rostow, which are *Economic Growth Stage* published in 1960 and *Politics and Growth Stage* published in 1970, the economic development processes and stages of various countries as well as existing problems are researched based on historical and dynamic methods from perspective of world economy development, and then the growth stage theory is proposed. In addition, Walt Whitman Rostow divides the economic development of various countries into six stages, including traditional society stage, take-off stage, maturity stage, public consumption stage and stage of surpassing public consumption. He thinks the "take-off" stage is the first "break-through" of human society, namely, the modern industrialization, sharp reform of production methods and industrial revolution are realized within short time. The conditions for economic "take-off" include productive investment accounting for over 10% of the national income, the formation of dominant department, institutional reform, technology innovation popularity and "entrepreneur" appearance.

This theory stresses the role of technology, capital and leading industry, which has certain reference significance to the economic development of developing countries. But the analysis method of growth stage theory lacks of scientific basis, and its stage division doesn't conform to the historical development process.

Thodore W. Schults' "Human Capital Theory". In the 1960s, the American economist Thodore W. Schults raised the "human capital theory". He expounds the content of human capital systematically and thinks human capital refers to the capital presented on humans, that is the sum of producer's expenditure on education and occupational training as well as the opportunity cost in education process, presented by the inventory sum of various production knowledge hidden in humans, labor and management skills as well as health quality. He specially stresses the role of education on human capital increase.

Human capital theory highly stresses the role of human capital in transforming traditional agriculture and moderating rural poverty, and holds that strengthening human capital investment is the key for rural areas to shake off poverty, which has important highlight for anti-poverty research on rural areas of developing countries.

Hollis B. Chenery's Development Model. Hollis B. Chenery is one of the American famous development economists and the representative of structuralist development economics schools. He and his colleague publish the *Development Patterns* from 1950 to 1970, analyze the connection between economic development and economic structure change of these countries according to the statistical materials of 100 countries with different economic growth degrees during the 20 years after the war, and get the "normal" change model of economic structure with the economic development, namely, the transformation from agricultural production to industrial production, consumer demand transforming from stressing food and life necessity to diversified manufacturing products and labor force consumption and so on, and then the conclusion that the capital accumulation is the necessary situation of economic development instead of sufficient condition is obtained.

In view of the ten trends summarized by Hollis B. Chenery, because the national type for reference is extensive (including developed countries and developing countries), the number of country is large (1,000 countries) and the time is long (20 years), if the trends are taken as average trend, they will be of great reference value for developing countries to formulate development policy.

Main Contributions of Anti-poverty Theory of Development Economics

The above anti-poverty theories of development economic are an agglomeration of anti-poverty researches in different stages, which represent the latest cognition of people of the current era on poverty problem, play an important role in promoting world anti-poverty practices and anti-poverty research development.

Promote World Anti-Poverty Practices. The various anti-poverty theories of development economic analyze the causes of poverty from different perspectives and aspects, put forward the

countermeasures to anti-poverty, point out the objective and direction for policy formulation and route selection in anti-poverty, play an important role in promoting world anti-poverty practices. For example, the trickle-down effect theory promotes the developing countries to carry out the economic growth anti-poverty strategy, wherein, human capital theory affects the implementation of human capital investment strategy. In summary, these theories have made great progress in enhancing people's living standard, realizing their own development and maintaining social fairness, which have made indelible contributions for various countries to moderate and gradually eliminate poverty.

Promote Deeper Research on Anti-Poverty. Each kind of anti-poverty theory has made certain contributions to the anti-poverty problem, but with the social and economic development as well as the changing poverty contents, the original theories have presented their defects and insufficiencies. New theory is innovating based on original theories. Such kind of cyclic theoretical research process is not only the necessary requirement and presentation of era development but also the deepening on poverty problem, which will point out the direction and route for poverty problem solving gradually.

Insufficiency of Anti-poverty Theory of Development Economics

The development of anti-poverty theory provides powerful theoretical guidance for world anti-poverty practices and plays an important role in final elimination of poverty, which exists with obvious insufficiency as well.

Lack of Overall Mastery on Anti-Poverty Problem and Unable to Point out the Direction for Shaking off Poverty Fundamentally. Anti-poverty is a complicated subject involving multiple disciplines and fields, all the above anti-poverty theories explain the causes of poverty and strategic route selection for anti-poverty from different perspectives, which have their own relative advantages but have a common defect, that is, they all have no comprehensive theoretical explanation on anti-poverty problem. "It is difficult to see the forest for the trees", which tends to cause the situation of attending to one thing and losing another. For example, the practices based on the trickle-down theory bring economic growth but cause the disparity between rich and poor. Numerous facts show that the current anti-poverty theory of development economics can not point out the direction for shaking off poverty fundamentally. Only through mastering the poverty problem from an overall perspective, systematically integrating and deeply exploring the quintessence of various anti-poverty theories can the disconnection between various anti-poverty theories overcome thus to point out the director for realizing the anti-poverty objective finally.

Lay Emphasis on Researching the Material Poverty and Lack of Attention on Spiritual Poverty. The above anti-poverty theories mainly center on the material factors of anti-poverty but neglect the spiritual factors. Especially since the end of 1940s to the middle of 1960s, the development economists have excessively emphasized the importance of material capital accumulation to anti-poverty, and basically taken economic growth as the primary objective of anti-poverty. They hold that economic growth will certainly cause "trickle-down effect", and the economic growth achievements will automatically benefit the low-income levels. However, economic growth is the powerful impetus to reduce income poverty, but the practices show that the poverty reduction degree doesn't rely on economic growth completely [5]. In fact, compared with material poverty, spiritual poverty has more internal and essential connection with poverty. From long run, if spiritual poverty problem is not solved, the anti-poverty process will certainly be affected. Therefore, spiritual anti-poverty must be stressed besides the material anti-poverty, and only in this way can the poverty problem be solved fundamentally.

Stress Research on Poverty and Lack of Ultimate Concern about Humans. The subject of poverty is human, therefore, anti-poverty should center on free and comprehensive development of humans instead of centering on poverty itself. Throughout the development and evolution of anti-poverty theory, it always focuses on how to eliminate poverty instead of human development. Many theories take economic growth as the objective of anti-poverty, as a result, the poverty is not eliminated but the human development is neglected to cause dilemma for anti-poverty. Though

human capital theory breaks through the restriction of traditional theories and begins to center on humans, but in essence, it equals the formation mechanism of human's productivity to the material capital, take humans as wealth which can be obtained through investment, which takes human as a kind of capital means in essence, which is contrary to the realization of ultimate concern about humans.

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