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Economic quantum can open the door to global economic recovery

By CCIEE research team
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CCIEE (China Center for International Economic Exchanges) postdoctors "economic quantum entanglement" research team found: Economic quantum can open the door to global economic recovery.

Today global economic situation is under major adjustments. The IMF and the World Bank data show that since the global financial crisis the world economy is in long-term hovering recovery. Global trade structure, financial structure, monetary structure, asset structure, energy structure, labor structure, employment structure, enterprise structure, the global industrial chain and social structure, these ten are moving overall gravity center. structural changed Gravity center movement as dependent variable, the world science and technology progress as independent variable, the evolution of world order as variable, the great rejuvenation of the Chinese nation 'China dream' as new variable, are more and more close, which is arriving the closest period since last one hundred year. In order to describe the process of those great changes, based on the experience of quantum mechanics overcome old quantum theory's difficulties and limitations, according to Planck-Einstein's light quantum technology path, we introduce the basic concept of "economic quantum" and "economic quantum entanglement".

In quantum mechanics, the system state has two kinds of changes, one is the system state evolution according to the equation of motion, which is reversible change; the other is to measure the change of the system state, which is irreversible change. Therefore, the quantum mechanics cannot give a definite prediction to the physical quantity which has decided state, but only the probability of the physical quantity which can be measured. "Economic quantum" and "economic quantum entanglement" are the same.

Economic quantum and quantum entanglement

Economic quantum connotation. Economic quantum is the smallest unit of economic factors, cannot be divided any more. For example, a labor property in labor market, a commodity property in commodity markets, investment properties unit in capital markets, can be described as economic quantum. Like all quantum theory possibility prediction realized at the same time, the realities become parallel universes independent mutually, economic quantum can be used to insight parallel universes caused by multilayer structure evolution of the economic and social development. Because we as observers, cannot exist in all parallel universe, therefore, we only observed measurements in our universe, while in the other parallel universe, we observed their measurements in their universe. The Schrodinger equation is the theory describes the sum of all parallel universes.

Economic quantum entanglement. "Quantum entanglement" means two quanta in entangling like twins have telepathy with each other, no matter how far away between twins, when big brother's status changes, little brother's state also followed the change. According to the IMF and the United Nations' data in the past 10 years to make IGAB (‘ Important Global Affairs baseline' English referred to as: IGAB) analysis showed that global quantum dynamic balance meet world science and technology ‘quantum entanglement' in the recovery of the world economy process, is mapping of ‘economic quantum entanglement'. As an appearance of "economic quantum entanglement": the global financial crisis in 2008 has been passed over 8 years, the United Nations in <2016 world economic situation and prospects> reports that global economic growth in 2016 is expected to remain weak, and in 2016 and 2017 the world economy will increase 2.4% and 2.8% respectively.

IGAB factor analysis showed that: due to the lack of motivation driven by science and technology, that is to say, Newton science and technology system cannot provide enough power to lead the global economic recovery. United Nations Department of Economic and Social Affairs report shows that in 2016 the global economic growth expectation is only 2.4%, reduced 0.5 points from forecast that released last December. Continued weakness in demand of developed economies will continue to drag down global economic growth. Commodity prices sagging, fiscal and current account imbalances, policy tightening have a negative impact on commodities export economies, such as African countries, CIS, Latin America and the Caribbean region. Severe weather, political challenges and capital outflows have also increased the negative impact on economic growth to developing countries and regions. Expected economic growth in the least developed countries in the next two years will be 4.8% and 5.5%, far below the sustainable development goals ‘at least 7% of GDP growth'. IGAB analysis shows that this is caused by ‘quantum entanglement' and its mapping ‘economic quantum entanglement'. It may influences global public spending on education, health, requirement of climate change and poverty reduction progress. According to per capita terms, GDP growth is slowdown obviously in many developing countries and regions. In Africa, the per capita GDP growth annual average is expected only 0.4% during 2015 to 2017.

The dependent variable of economic recovery

The progress of science and technology is the independent variable, while the economic growth and social progress is the dependent variable for science and technology development. Compared to the quantum system of science and technology, Newton system of science and technology has the same property but different reflection. Those differences can be considered as hundred years.

The major difference between the quantum mechanics and classical mechanics is in the value of measurement process in theory. In the classical mechanics, the position and momentum of a physical system can be accurately identified and predicted. At least in theory, the measurement has no effect on the system itself, which can be performed accurately. However, in the quantum mechanics, the measurement process will affect the system.

In order to describe the measurement of an observable parameter, we need to linear decompose the state into a set of observable eigen states linear combination. The measurement process can be considered as a projection on these eigen states, and the measured results are eigen values corresponding to the projected eigen states. Assuming that we measure each copy of a system with unlimited copies, we can obtain the probability distribution of all possible measured values, and the probability of each value equals to the squared absolute value of the coefficient of corresponding eigen state. Thus, the measurement order for two different physical quantities A and B may directly affect the measurement result. In fact, incompatible observable is "uncertain".

IGAB analysis indicates that the science and technology can't provide sufficient momentum, that is to say, the economic state supported by Newton system of science and technology lack of growth momentum. Though Newton system of science and technology tried to promote the economic growth and social progress, it is difficult to drive the recovery of global economy. Hence, the quantum system of science and technology is required to support the global economic recovery and a new round of low-carbon, green, and sustainable development for a long period.

The quantum dynamic balance

It has been found that the "quantum dynamic balance" comes from Newton properties, also with quantum properties and at least combined five states. The first state is the dynamic balance of new development, among the developed countries and regions, the emerging market countries and regions, and the underdeveloped countries and regions. The second state is the dynamic balance of new order, among the trade liberalization, the investment facilitation, the polarization and aggregation of economic globalization. The third state is the new arrangement dynamic balance among the Chinese contribution, win-win cooperation, and the construction of human destiny community. The fourth state is the dynamic balance of new ecology, among the reindustrialization, the new-type urbanization, the low-carbon, green, and sustainable development. The fifth state is the dynamic balance of new science and technology, among the classic system of science and technology before Newton system, the Newton system of science and technology, and the quantum system of science and technology, which is also a huge platform and carrier for global economy, science and technology. These five states combined dynamic balance meet the global century problem "economic quantum entanglement" since 2008, this is the fundamental reason for world economy is keeping weakness.

The global quantum dynamic balance is based on science, justice and equality. The "economic quantum entanglement" aims to break various economic states which supported by Newton system, and focuses on mobilizing scientists all over the world to innovate, develop and polish the independent variable of quantum system of science and technology. Guided by the successful launch of the world's first quantum satellite of China, advocates various new industry state supported by quantum science and technology, and implements a new round of low carbon, green growth of the global economy for a long period of time.

The "economy quantum entanglement" focuses on increasing the representativeness and voice of emerging market countries and developing countries, evenly reflects the wills and benefits of most countries. Guided by openness, should avoid self-imposed isolation and beggar-thy-neighbor policies, and can't develop relationship on the basis of distance, make exclusive arrangements, make lines on ideology and values. Need to insist ideals, policy and mechanism opening. To cooperate as the driving force, we should carry forward the spirit of cooperated partner, sail in the same boat, strengthen the communication and coordination, take care of the benefits and concerns of each other; To share as the goal, need to make all the countries and people enjoy to benefits of the growth and development, avoid dominance or winner-take-all mode. As China chairman Xi Jinping proposed the point of global governance in the G20 Hangzhou summit, jointly build a fair and efficient governance for the global finance structure, maintain the stability of the world economy; jointly build an open and transparent pattern for the global trade and investment structure, and strengthen the multilateral trading system and release potentiality of global trade, investment and cooperation; jointly build a green, low-carbon structure for global energy governance, and promote the development of global green development and cooperation; jointly build a tolerate and linked pattern for global development and governance, to implement the United Nations agenda for sustainable development in 2030, improving human welfare.