“Impacts that the Structural Transformation of the World Economy Has on the East Asian Region”

Report of Joint International Research Project by Japan, China and Korea

(Abstract)

1. Overview of Research
This research aims to clarify the current structural transformation of the world economy from the perspective of East Asia (Japan, China, and Korea) through empirical analysis. The Economic and Social Research Institute (ESRI) of the Cabinet Office, Government of Japan has been conducting joint research project with the Development Research Center (DRC) of the State Council, People’s Republic of China since 2010. By adding a Korean researcher, this current joint international research project is now based on researchers from the three countries of Japan, China, and Korea. This report is a summary of presentations during the researcher’s meeting up until now.

[Research team members]
(Japan) Chairman TAKEMORI, Shumpei Professor, Faculty of Economics, Keio University
IWAMOTO, Takekazu Professor, Graduate School of Economics, Kyoto University
MATSUBAYASHI, Yoichi Professor, Graduate School of Economics, Kobe University
TODA, Akihito Researcher, Recruit Works Institute

(China) ZHAO, Jin Ping Deputy Director, Foreign Economic Relations Department, DRC

(Korea) BAAK, SaangJoon Professor, School of International Liberal Studies, Waseda University

2. Abstract of the Final Report
(1) The paper by Takemori and Toda focuses on the fact that upon conducting global comparisons, when a financial crisis arises in a given country, in many cases, the exchange rate of that country depreciates and the economy recovers through an expansion of exports due to currency devaluation, but that in the case of only Japan, the exchange rate resulted in an appreciation of the yen after the financial crisis. The main intent of this paper is to uncover the reasons behind why the exchange rate, or the “price signal,” did not function to adjust the economy in the proper direction in Japan only. Several countries are discussed as models, and upon conducting analysis based on dividing data
into (a) small countries that import capital (Sweden, Finland, Korea), (b) large countries that import capital (United States), and (c) countries that export capital (Japan), it was found that in Japan, which is a country that exports capital, companies reached into their external assets during the financial crisis and returned their capital to Japan, thus resulting in “capital flight” not occurring for the most part.

(2) Iwamoto's paper analyzes the structural transformation of the world economy over the past 20 years from the aspect of global capital flow. As a result, it was found that with regard to the world economy, structural transformation is progressing such that (a) in advanced countries, international asset transactions increase bi-directionally, thus expanding both outflow and inflow of gross capital flow, and resulting in straddling and bloating of external gross assets and gross liabilities as stock, and (b) in emerging countries, as a result of capital flow continuing in a single direction, external net assets (or liabilities) as stock are expanding. Next, upon analyzing the capital flow before the global financial crisis (2008) in detail, it became clear that when looking at gross values, capital flow between the US and Europe was the largest, and when looking at net values, the capital flow from Asia-Pacific (area with current-account surpluses) to the US (deficit) was the largest. With regard to this point, the “Global Saving Glut Hypothesis” proposed by the US FRB chairman Bernanke in order to explain the global imbalance focuses on the net aspect of capital flow, but indicates that there are limitations to explaining the reality of expansion of gross capital flow before the financial crisis. Furthermore, the paper also points out that what lies behind the background to this capital flow in the US expanding based on gross values for both outflow and inflow is short-term borrowings and long-term credits by European banks to the US.

(3) In Matsubayashi's paper, simulation analysis is performed using a quantitative analysis method based on the time-series model known as Global VAR regarding the kinds of impacts that the financial shock in Europe and the US have on the actual economy in East Asia. Global VAR tries to capture the interdependent relationships of multiple countries based on trade links, and is a systemization of the concept of “the values of the current term in one's own country being affected by past values of one's own country and current and past values of other countries.”

In this simulation, the world is divided into eight regions, and calculations were made by selecting a total of 34 countries as target countries. Based on these calculations, the following kinds of conclusions were obtained.
(a) The financial shock that originated in the US (negative share price shock) aggravated the actual economies of nearly the entire world. Countries in East Asia are no
exception.

(b) There is variation in the impacts of the financial shock that originated in the Eurozone on the actual economies of various countries. In East Asia, the actual economy of China in particular was greatly aggravated.

(c) The impacts that the economic fluctuations of Europe and the US have on East Asia, and on the Chinese economy in particular, have the possibility of becoming larger after the mid-1990s. The background behind this is the structural change of the world economy in that the trade link between the Chinese and European/US economy has become further cohesive.

(d) Within the East Asian region, there is a large possibility that China serves as the nucleus of propagation of economic conditions. The cause behind this is that the trade structure in this region is encouraging expansion of “vertical transactions.”

(4) Zhao’s paper analyzes the effects that the structural transformation of the world economy has on (a) economic growth in China and (b) trade structure in China.

With regard to (a) economic growth in China, it is forecasted in the paper that (i) as the economy of advanced countries continues to stagnate, emerging countries maintain a comparatively high growth rate, and large changes are occurring in the framework of the world economy; (ii) in China in particular, relatively high growth is continuing, expanding the impact on the world economy; (iii) what is supporting this Chinese economy is investments supported by a high savings rate (50% of GDP); and (iv) since the aging population and increase in labor costs weaken the competitive power of Chinese products, such products are directly faced with competition from products of advanced countries due to a transformation of the domestic industrial structure.

With regard to (b) the trade structure in China, as the trade structure is affected by structural changes in the world economy, the paper analyzes that (i) the trade shares of developing economic units in world trade are increasing; (ii) although Chinese products were exported mainly to advanced countries, the export destinations of such products are becoming diverse and the export market structure is changing greatly due to economic stagnation of advanced countries and Chinese market diversification strategies; (iii) results of Chinese trade balance policies are evident, and the trade imbalance continues to improve; (iv) on the other hand, the morphology of trade protectionism is becoming complex and diverse, and risk factors for world trade are increasing instead; and (v) although Chinese export items continue to shift from those that are labor-intensive and based on resources to those that are technology-intensive, the products that are the most competitive continue to be labor-intensive products.
(5) BAAK's paper estimates the export functions of Korea's four major trading countries (regions) ((a) China, (b) Euro zone, (c) Japan, and (d) US), and based on these estimation results, analyzes the kinds of effects that changes in the global economic environment have on Korean trade. Based on the current conditions of the Korean economy being largely dependent on foreign demand, this paper focuses particularly on Korean exports, and concludes the following.

(a) China is the largest market for Korean products (total export of 24%). The Chinese GDP grew by an average of 10.4% from 2001 to 2011. The income elasticity of the Chinese market is 1.65, and exports to China also grew by an average of 17.2% per year. If the Chinese economy were to be dealt a great blow, the Korean economy would also endure a serious shock.

(b) If the crisis in the Euro zone can be completely overcome, it is estimated that exports to the Euro zone will increase by 47%. Although it is not thought that the crisis will be overcome in a short period of time, exports will increase in association with economic recovery in the Euro zone in the future. The price elasticity of the Euro zone is 0.6, and if the Euro rate in relation to the Korean won increases by 10% hypothetically, then exports to the Euro zone would decrease by 6%.

(c) With regard to Japan, exports to Japan increased suddenly by 28% in 2011 after low growth in recent years and due to the impact of the Great East Japan Earthquake. According to estimations under such conditions, if the Japanese economy grows by 1 point, exports to Japan would increase by 7.2%, and if the yen rate in relation to the Korean won increases by 20%, then exports to Japan would decrease by 5%. However, as the impacts of the earthquake disaster are thought to gradually fade, it is difficult to think that exports to Japan will increase suddenly in the future.

(d) The ratio of the US in terms of exports continues to decline (20% in 2001 → 10% in 2011). The income elasticity of the US is 3.83 and price elasticity is 1.15. Even if the US GDP increases by 1%, if the won increases by 3.3%, then the effects will cancel each other out.