

## I. 개 요

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## 4. 제 목

– "Measures of Competitiveness in Korea"

## II. 주요 논의 사항

## 1. Introduction

A country's competitiveness has been the key to integration into the world markets and the main strategy of economic growth. And the changes in one's competitiveness have transformed the trend of the global economy, requiring a major re-evaluation of the trade policies and thorough examination of countries' comparative advantage.

The research mainly focuses on analyzing the current criteria that are being used in Korea and in other countries for evaluating their competitiveness and the longer-term comparative advantage and of their industries. Then, it studies several other criteria that have been developed in recent years with the aim of dealing with some weaknesses of the criteria that are currently being use

## 2-1. Measuring the Competitiveness, the REER

International competitiveness is affected not only by the exchange rate but also by domestic and foreign price movements. Even when the nominal effective exchange rate of the KRW remains unchanged, the relative competitiveness of Korean goods increases when the inflation rate of its trading partner is higher than that of Korea. The nominal effective exchange rate is adjusted to incorporate inflation rate differences, called the Real Effective Exchange Rate (REER).

The REER is the aggregate measure of competitiveness between countries and there are many different ways of measuring Korea's REER depending on the choice of price indices, the division of country's traded products into sub-groups, the choice of countries that are included in the analysis, and the different ways of taking into account various trade barriers.

In evaluating the country's competitiveness and its changes, the "law of one price" underlies, in which the international trade equates the purchasing power parity (PPP). Therefore, all identical goods must have only once price in a competitive market.

$$E = P/P^* \quad (1)$$

Where P and P\* are the prices of homogeneous goods in Home and Foreign countries and E is the nominal exchange rate between two countries.

As mentioned in the above, the REER is an indicator to grasp Korea's international competitiveness in terms of its foreign exchange rates and it is given by:

$$r_t = e_t - P_t + P^*_t \quad (2)$$

Where r is the country's REER,  $e_t$  is the nominal exchange rate, and  $p_t$  and  $p^*_t$  are the price levels in the home and foreign countries.

The equation (2) shows that the price index and the nominal exchange rate play an important role since their changes affect a country's competitiveness, triggering commodity arbitrage that will re-establish the PPP. Moreover, when the price index is used as the production costs per unit of output, the real exchange rate measures the country's cost competitiveness, and is given by:

$$r = e - [(w - d) - (w^* - d^*)] \quad (3)$$

Where w is nominal wage and d is the productivity of labor. The decrease in wage or the increase in the productivity of labor in Korea will raise its REER, increasing its cost competitiveness.

In multi-country multi-product world, 'Tradable (exportable or importable) Products and 'Third Country' should be defined in measuring the competitiveness. It is because that the Home country is exporting to only part of the world countries and some of the countries with which the Home country does not have trade are exporting to some of the same countries to which the Home country is exporting.

Therefore, the REER can be changed due to many changes in the price index of imported and exported goods, in the nominal exchange rate, in the share of countries of origin of imported goods, and in the countries of destination of exported goods.

## 2-2. Alternative Measure of Competitiveness

Besides the REER, the study concerns about alternative measures of competitiveness in Korea. The most important condition to improve this measure is to divide the traded products into sub-groups of relatively homogeneous goods. Then, select products that are defined by the 'Standardized International Trade Classification (SITC) categories 5-8, excluding SITC 68. Finally, the Producer Price Index (PPI) or the Wholesale Price Index (WPI) can be used.

## 2-3. Alternative Evaluation of Competitiveness

The study also reviews alternative approach to evaluate the competitiveness. The nation's quality of institutions, policies, and input factors that determine the level of productivity of country are evaluated on the basis of the country's business environment. Among several country surveys, the main index can be drawn from the World Bank's "Ease of Doing Business." The index measures whether the regulatory environment is conducive to the operation of business and its main indicators include the

ease of doing business rank, starting a business, dealing with construction permits, employing workers, registering property, getting credit, protecting investors, paying taxes, trading across borders, enforcing contracts, and closing a business. Besides alternative measures, there are alternative evaluations of competitiveness.

### 3. Conclusion

Measuring Korea's competitiveness, which is crucial for its economic development strategy, is mainly done through the REER. The REER tries to show the movement in the prices or costs of production of domestically produced goods relative to the prices or costs of goods produced by competitor countries, expressed in a common currency. As an indicator of Korea's competitiveness, it takes into account both export and import competitiveness and a fall in REER indicates improvement in Korea's competitive position.

## III. 주요 토의 내용

**Q) 오용협 박사:** 글로벌 금융위기로 인해 한국 경제의 경쟁력이 떨어졌다고 보는가?

**A) Bigman 교수:** 본 논문에서의 경쟁력 평가지표와 실질환율로 보면 오히려 원화의 가치하락으로 수출시장에서의 경쟁력이 높아진 것으로 나타난다. 따라서 한국의 경쟁력은 더욱 높아질 것으로 예상된다.

**Q) 이인형 박사:** 글로벌 금융위기가 수출·수입과 같은 무역에 영향을 미치는 채널은 실질환율만이 아니다. 다른 채널이 있다면?

**A) Bigman 교수:** 물론 있다. 예를 들면 국가 간의 기술력(technology) 차이, 또는 Ricardo가 말한 국가간 비교우위도 여전히 유효하다.