

## What determines a country's current account and exchange rate? - a tale of two external drivers

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### I. Introduction

Korea's current account has generally recorded a surplus since 2000, thanks to a large surplus of the goods account. Looking at the 12-month moving cumulative current account trend in Figure 1, the surplus continues with only the exception of a period during the global financial crisis. Since 2012, the scale of the surplus has further expanded, exceeding \$100 billion for about a year from the end of 2015. However, since late 2016, the surplus has been gradually reduced due to slowing exports. In 2020, the current account surplus was about 63.8 billion dollars, and according to the Bank of Korea's semi-annual report,<sup>1</sup> the current account surplus in 2021 and 2022 is expected to continue to shrink, recording 60 billion dollars and 58 billion dollars, respectively.

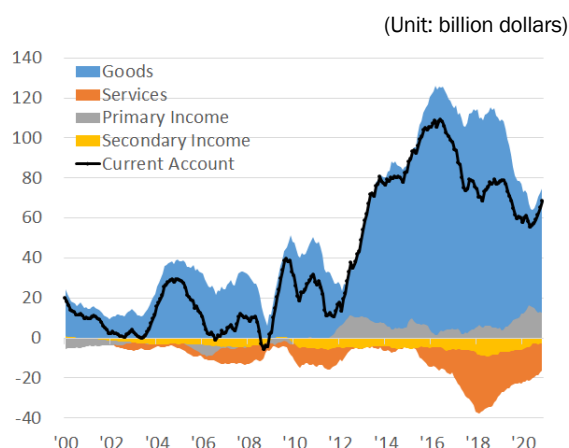
Recent reports by the U.S. Treasury Department and International Monetary Fund (IMF) positively point out that the size of Korea's current account surplus has been shrinking. For example, according to the U.S. Treasury Department's annual report,<sup>2</sup> the ratio of the current account surplus to GDP recorded 3.5% over the four quarters through June 2020, falling by 0.5%p compared to the previous year. Therefore, although it still meets the thresholds set to designate a currency manipulator nation, Korea can be expected to approach a balanced current account as it shows a gradual contraction. The IMF has also stated that Korea's external position is largely in line with the mid-term economic fundamentals and desirable policies.<sup>3</sup>

<sup>1</sup> Bank of Korea. "Economic Outlook (November 2020)"

<sup>2</sup> U.S. Department of the Treasury. December 2020. "Macroeconomic and Foreign Exchange Policies of Major Trading Partners of the United States"

<sup>3</sup> International Monetary Fund. August 2020. "External Sector Report: Global Imbalances and the COVID-19 Crisis"

**Figure 1. Korea's Current Account Balance**



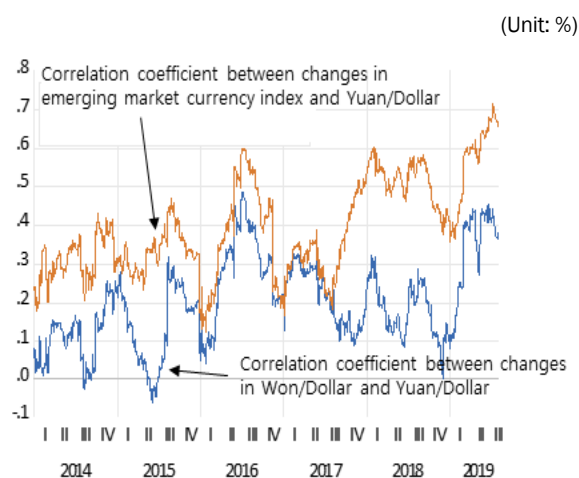
Source: Bank of Korea, Economic Statistics System.

Meanwhile, historically, the won has been greatly influenced by trends in the U.S. dollar, while the won's co-movement with the renminbi has grown stronger since 2016. Figure 2 shows the trend of correlations between the renminbi-dollar exchange rate, the won-dollar exchange rate, and the currency index of emerging economies, including the Korean won, show co-movement with the Chinese yuan.

The currency co-movement between the won and the renminbi is attributed to the fact that the international financial market participants consider the Korean economy highly dependent on the Chinese economy. Also, the won exchange rate tends to be used as a proxy for the renminbi exchange rate, as the Korean foreign exchange market is fully open.<sup>4</sup>

4 Sungbae An *et al.* 2019. "The Development and Impact of the US' Designation of China's Currency Manipulator," KIEP World Economy Today

**Figure 2. Degree of Currency Co-movement with the Renminbi**



Source: Bloomberg; Sungbae An *et al.* (2019)

Against this backdrop, Minsoo Han *et al.* (2020)<sup>5</sup> analyzed the determinants of the current account balance and the currency co-movement between the Korean won and Chinese yuan. The results of this study are meaningful as a response logic to future exchange rate pressures.

## II. Determinants of Current Account Considering Access to International Financial Markets

There are many studies analyzing the determinants of the current account balance, but these have mostly centered on advanced countries with key currencies, showing differences between current account estimates and actual current account balances. The IMF has also worked on refinements to the current account

5 Minsoo Han *et al.* 2020. "Structural Factors Behind Foreign Exchange Rate and Current Account Balances And Policy Directions," KIEP Policy Analysis 20-17.

model in order to consider more diverse factors in the External Balance Assessment since 2012.

This analysis attempts to consider accessibility to international financial markets as a means to improve the explanatory power of the current account. The reason for considering access to international financial markets can be seen from the perspective of both current account deficit and surplus countries. Under the current international financial system, countries that are relatively inferior in terms of international financial market access have a motive for precautionary savings to accumulate foreign assets (or, accumulate current account). Conversely, current account deficits may arise from obtaining higher financial income after international risk sharing in countries with advanced financial markets or key currency status.

This analysis considers the amount of foreign bonds issued, holding of key currency, and private credit (proxy of the financial market development) as measuring variables for access to the international financial market. Estimating the mid-term current account determinants, we can find the increases in private credit and foreign bond issuance have negative correlations with the current account's share of GDP (See Table 1). In other words, as a country's accessibility to international financial markets increases, its current account deficit tends to shrink. This suggests that the relative status of the country in the international financial market may serve as a factor in determining the structural current account level.

**Table 1. Estimation Considering Access to International Financial Market**

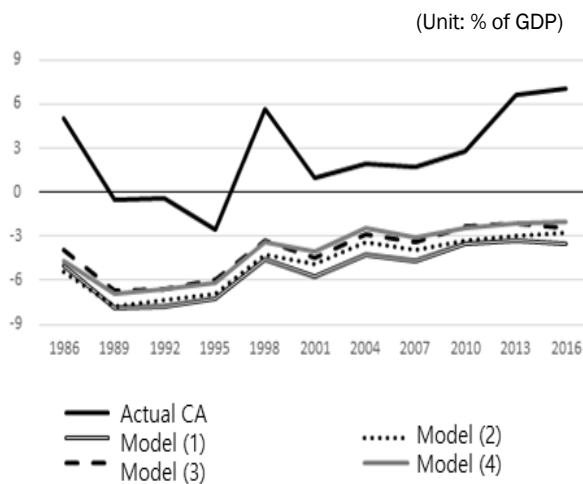
Determinant	Base (1)	Access to international financial market		
		Foreign bond (2)	Key currency status (3)	Foreign bond · Key currency status (4)
Fiscal balance	0.312***	0.281***	0.298***	0.273***
Net foreign assets	0.003	0.010	0.002	0.009
Relative income per person	-0.070	-0.027	-0.067	-0.026
Growth rate	-0.254**	-0.272**	-0.252**	-0.270**
Child support	0.141*	0.141*	0.135*	0.137*
Old age support	-0.000	0.322**	0.366***	0.312**
Life expectancy	0.384***	0.165	0.177	0.166
Trade openness	-0.002***	0.072***	0.078***	0.071***
Capital openness	0.176	-0.298	-0.342	-0.293
Crude oil net exports	0.081***	0.489***	0.457**	0.483**
Private credit	-0.351	0.042***	-0.046***	-0.041***
Foreign bonds	0.464**	-0.136**	-	-0.131**
Key currency status	-0.049***	-	-0.136	-0.093
Number of observations	328			
Number of countries	48			

Source: Author's calculation.

Next, the current account estimate was calculated from the estimation results in Table 1. Figure 3 shows Korea's current account from a mid-term perspective. When estimating the medium-term current account with the base model

(1), the current account gap, calculated by subtracting the estimated medium-term current account from the actual current account, was about 0.4%p to 1.7%p from 1986 to 2016. Also, it was found that 0.8%p–1.5%p is overestimated according to models (2), (3) and (4) focused on 2016.

**Figure 3. Korea's Balanced Current Account**



Source: Author's calculation.

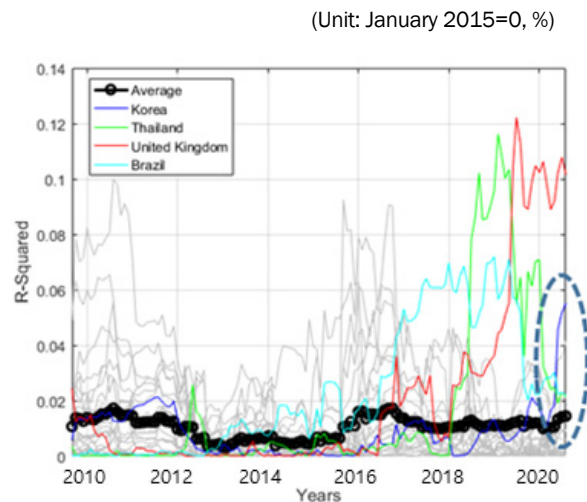
### III. Analysis of the Impact of the Renminbi on the Korean Won Exchange Rate

We analyze the following two factors: first, the impact of the Chinese renminbi on the won during the period from August 2015 to July 2020, when the renminbi exchange rate volatility appeared, and its influence changing over time.

In the case of the won, when the renminbi is appreciated (depreciated), there was a coincidence of appreciation (depreciation) together,

which was statistically significant at the 10% level. In addition to Korea, the United Kingdom and Malaysia were among the countries where the co-movement with the renminbi occurred. In addition, when examining the influence of the yuan factor over time using the rolling window methodology, as shown in Figure 4, in the case of Korea, the influence of the yuan's factors on time has increased rapidly, explaining more than 5 percent of the won's exchange rate fluctuation.

**Figure 4. The Dynamic Influence of the Yuan**



Source: Author's calculation.

### IV. Conclusion

Since 2016, Korea's current account surplus has largely been on the decline, and both the International Monetary Fund and the U.S. Treasury Department have evaluated that Korea's external sectors, such as current account and exchange rate, are in an appropriate position in line with its fundamentals. It is also unlikely that appreciation pressure will be applied on the

won in the near future, when considering the prevailing outlook for a weak dollar due to large monetary and fiscal expansions in the U.S.

Nevertheless, the Biden administration in the U.S. will maintain its own priorities, and continue to retaliate against currency manipulators and impose countervailing duties. Therefore, it will still be necessary to monitor the determinants of the current account and exchange rate.

The results of the analysis of current account determinants support the logic that the current account imbalance will gradually ease from a long-term and structural perspective if the domestic financial market develops or access to the international financial market is strengthened. In addition, existing structural current account estimates that do not take into account international financial market conditions may have underestimated the structural current account balance of emerging countries such as Korea, and conclude that global imbalances are structural under the current international monetary system.

On the other hand, based on the above analysis of the currency determinants, we can argue that the weak won is structurally inevitable due to the weak yuan. This study can be expected to reinforce the logic of responding to situations in which the risk of exchange rate pressure on Korea will increase in the future. **KIEP**