

Korea's Macroprudential Policies for Capital Flows: Accomplishments and Road to Improvement

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I. Introduction

Major advanced economies have taken policy measures to strengthen the resilience of the financial system since the 2008 global financial crisis. On that basis, the G20 Coherent Conclusions for the Management of Capital Flows Drawing on Country Experiences was established in 2011 and various discussions among policy circles including the OECD and IMF followed. Emerging economies have also taken various policy measures to manage systemic risks associated with capital flows.

In 2010, Korea's authorities announced foreign exchange-related macroprudential measures (MPMs) aimed at building resilience against external financial shocks. These measures have greatly contributed to limiting systemic risk by curbing excessive capital inflows. In particular, they have been successful in increasing financial sector resilience by limiting exposure to liquidity risk, reducing maturity mismatches caused by short-term for-

eign exchange (FX) borrowing, and more generally lengthening the maturity of the financial sector's FX borrowing. Moreover, they have been effective, with the cap on foreign exchange derivative position reducing foreign bank branches' short-term FX borrowings, and the levy limiting domestic banks' FX borrowings.

By now, FX-related policies in Korea are expected to work as a useful safety net in response to emerging risks from international capital flows. The U.S. Fed's New Consensus Statement, announced on August 27, 2020, is a major event that changes the nature of systemic risk in global financial markets. The Statement is far from the Fed's previous monetary policy stance. The most important change is that the U.S. Fed will not respond by raising the Fed's rates even if the inflation rate exceeds 2 percent. The market expects the trend of ultra-low interest rates to continue for the next five years. This suggests that capital inflows into EM countries will increase, which will also lead to elevated

systemic risk pressures in EM countries. Authorities need to come up with countermeasures as major changes in the direction of international capital flows are expected in the future. Since the announcement of the New Consensus Statement, emerging economies, including Korea, are concerned about the resurgence of global liquidity. In this regard, Korea's experience in managing FX-related macroprudential policy measures over the past decade is expected to have a learning effect in preemptive responses to this new phase of capital flow.

Twelve years have passed since the global financial crisis started and ten years after the introduction of Korea's FX-related macroprudential policy measures. It is now a good time to check the performance and effectiveness of these policies. Given the new heightened risk environment, it is urgent to discuss, based on the evaluation, how to improve macroprudential measures in response to emerging external risks. In the process, we need to note that the global financial stability is threatened by a new and different type of potential risk, the dollar-funding problem. Stressed conditions were observed in FX swap markets, with a sharp widening of the FX swap basis across currencies. That is, major advanced economies such as Japan and Europe will be more competitive in the global financial market to secure the dollar in the event of a shock, which suggests that Korea's authorities should strengthen monitoring of the global financial market while prioritizing the management of dollar liquidity in response to the crisis. The authorities need to respond with caution, as the

capital inflow through domestic banks including foreign branches has declined in recent years under the existing macroprudential framework to limit excessive capital inflows. In this respect, constructive discussions are required for modifying and supplementing existing FX-related macroprudential policies introduced to limit excessive capital inflows.

II. Effects of FX-related MPMs in Korea

As the global financial crisis calmed down, capital inflows into Korea began to expand gradually. Portfolio investment such as equity and debt securities inflow into Korea increased as the Korean economy showed relatively solid growth, while short-term external debt also expanded as US dollar forwards provided to exporters were hedged by US dollar borrowings. In this circumstance, the authorities judged that the management of capital inflows was necessary as continued economic recovery and further accelerated capital inflows were expected. The authorities announced the introduction of FX-related macroprudential policies (a regulation on the ratio of FX derivatives position, an FX stability levy, and a tax on bond investment by foreigners) in order to mitigate capital flow volatility. The introduction contributed to strengthening the ability to manage and respond to capital flows by reducing systemic risk while complying with the OECD Code of Liberalization of Capital Movements. These measures are considered to

have contributed greatly to easing vulnerabilities in the FX sector through reductions in external debt in the banking sector and improvements in maturity structures. In particular, the proportion of short-term in the total external debt of foreign bank branches has declined greatly.

Since their implementation, FX-related macroprudential measures have been flexibly adjusted according to market conditions. A couple of adjustments have been made as uncertainties in capital flows continue to grow amid fears over the spread of Covid-19. First, the authorities loosen the cap on foreign exchange derivatives position in order to encourage banks to supply more liquidities. The cap on foreign currency forward positions for local banks has been raised from 40 percent to 50 percent. For foreign bank branches in Korea, the cap has also been raised from 200 percent up to 250 percent. Second, the levy on financial institutions' non-deposit FX liabilities is to be temporarily lifted for three months from April to June 2020, as well as installment payment plans expanded for payments due at the end of the year. In addition, a bilateral currency swap line with the U.S. Federal Reserve has been open for US\$ 60 billion since March 19, 2020. The new currency swap contract deal with the U.S. Federal Reserve contributed to the stabilization of the Korean foreign exchange market as it did during the global financial crisis in 2008.

The anticipated effects of the macroprudential policy, however, are limited during the Covid-19 pandemic. Incentives are needed for

investment abroad by residents to return for higher domestic investment in the future. Although the soundness index has improved due to FX-related macroprudential policies, the limited dollar supply through foreign bank branches has caused invisible costs, such as imbalances in the FX swap market. Thus macroprudential policies need to be improved in a way that increases market efficiency in the future.

III. Potential risks of FX market

In preparation for the next coming decade, systemic risks should be traced in terms of external sector and specific risk sources. To this end, we make an effort to identify new types of risks unanticipated by policy authorities and to discover thin markets usually ignored due to their small risk size. We also seek possible countermeasures.

(1) Strains in global US dollar funding

The Covid-19 pandemic led to globally tighter US dollar funding conditions as the US dollar money market became severely strained. The credit crunch in the US dollar funding market has intensified, with TED spread and LIBOR-OIS spread hitting their highest since the 2008 global financial crisis. Indeed, the US dollar funding market enters the competition to secure the dollar whenever a shock occurs in the international financial market. A good example is the recent depletion of the dollar

caused by the Covid-19 pandemic. On March 19, 2020, the Federal Reserve announced the establishment of temporary US dollar liquidity arrangements (currency swap lines) with nine central banks including the Bank of Korea. The FX swap basis against the US dollar (three-month) widened and then recovered after the announcement. It was most prominent in the Korean won, meaning that Korean financial institutions faced difficulties obtaining US dollar funding.

Recently, the FX swap market is showing very high volatility. According to BIS¹, the basis vis-à-vis the US dollar across major currencies has widened since the start of the Covid-19 pandemic. The three-month basis has widened to as much as –144 bp for the Japanese yen, –85 bp for the euro, –107 bp for the Swiss franc and –62 bp for the pound sterling. And the widening of the basis has been evident especially at short maturities (mainly three months). Roughly three quarters of outstanding positions had a maturity of less than one year. A common practice is to hedge the currency risk of long-term dollar assets by rolling-over short-term FX swaps. This means that the Korea's FX market is always exposed to liquidity risks from holding long-term dollar assets through short-term dollar funding. Concerns over US dollar liquidity are likely to be raised again if financial market instability is reconsidered due to the prolonged economic shock and the persistence of economic uncertainties.

The IMF² has warned that market expectations on the extent and length of central banks' support to financial markets may turn out to be too optimistic, leading investors to reassess their appetite for, and pricing of, risk. A resurgence of trade tensions could sour market sentiment, putting the recovery at risk. Finally, a broadening of social unrest around the globe in response to rising economic inequality could lead to a reversal of investor sentiment. This could be a trigger for financial market instability in an unprecedented economic recession.

(2) Strains in domestic US dollar funding

Korea is no exception. The basis for the Korean won has also widened since March 9, 2020, due to concerns over the economic recession caused by the Covid-19 pandemic and stronger investor appetite for risk aversion. The surge in securities firms' demand for foreign currency also contributed to the decline in swap rates in late March 2020.

The stock market plunge caused by Covid-19 had shaken up the Korean FX market as securities firms rushed to secure necessary funds in preparation for imminent margin calls for equity-linked securities (ELS) investment linked to EuroStoxx50, S&P500, HSCEI, etc. The liquidity crunch, due to massive margin calls that occurred in response to the increasing risks of losses from complex ELS, shows that

¹ Avdjiev, S., E. Eren, P. McGuire (2020) "Dollar funding costs during the Covid-19 crisis through the lens of the FX swap market," BIS Bulletin No. 1 (1 April), p. 2.

² IMF (2020) *Global Financial Stability Update*, p. 5.

the fundamental problem of the risk threatening the financial stability of Korea's external sector lies with the vulnerability in US dollar liquidity funding. In the case of Korea, the current account surplus supplies dollars to the FX spot market. However, as demand from the private sector (insurers, securities firms, asset management firms, etc.) surges in the FX swap market, it has a unique vulnerability leading to short-term external debt growth. This is because most of the US dollars raised by Korean insurers and asset managers come from the domestic branches of foreign banks being funded by their headquarters.

(3) Risk factors resulting from the strains in US dollar funding

a. Change in dollar funding behavior in Seoul branches of Chinese banks since the 2019 Hong Kong protests

It is worth paying attention to new risks arising from the change in US dollar funding channels from Chinese companies and banks after the 2019 Hong Kong protests. Hong Kong's financial market has been providing important funding channels for Chinese companies through IPOs and borrowings. Before the Hong Kong protests, Chinese companies used to procure US dollar funds mainly from a global financial institution located in Hong Kong and remit this to their mainland headquarters. However, it is expected that Chinese companies will change their channel to fund US dollars if the U.S. revokes Hong Kong's special status under the new national security law for Hong Kong. For example, there is a

high possibility that the US dollar funding channel for Chinese firms will be activated through Seoul branches of Chinese banks. Recently these branches allegedly have raised a large amount of US dollars in the Korean FX market and transferred them to the mainland.

The outstanding amount of Korea's short-term external debt was US\$ 114 billion as of end of March, 2020, which is the highest tally since US\$ 105 billion at the end of June, 2012. The increased amount of short-term external debt is mostly borrowed by Seoul branches of Chinese banks, showing signs of borrowing short-term loans from offshore markets and lending them back to the mainland Chinese bank. An increase in the external debt by the Seoul branch of a Chinese bank will be regarded as an increase in the external debts of Korean deposit-taking institutions. This is because the foreign bank branches are classified as deposit-taking institutions. Hence, possible changes in the US dollar funding channel of Chinese firms due to Hong Kong protests may lead to new types of systemic risks related to domestic financial stability.

b. Foreign currency liquidity risks faced by securities firms

On March 2020 amid the intensifying volatility in the global financial market, local brokerages were hit by the liquidity crunch due to massive margin calls in response to the increasing risks of losses from complex ELS. The US dollar to Korean won exchange rate soared to 1,285.7 on March 19, the highest in 11 years, as securities firms' US dollar demand surged. The

rise in the exchange rate also forced securities firms to sell their asset holdings as it further increased the required amount in the domestic currency, Korean won. As a result, securities firms sold their corporate bonds at once, causing confusion in the bond market such as a sharp drop in bond prices.

In order to support this large-scale supply of liquidity the Bank of Korea decided to expand the range of institutions and securities eligible for RP transactions, which was a plan to supply funds directly to domestic securities firms that had experienced difficulty funding US dollars due to the occurrence of massive margin calls from ELS. The Financial Services Commission announced its *Plans to Improve Rules on Structured Products*, with the aim of strengthening securities firms' preparedness for market volatility. As low interest rates are expected to continue for the time being, the issuance of structured products will increase further. The financial instability following the Covid-19 outbreak has eased due to the authorities' policy response. However, preemptive measures will be needed to prepare for the recurrence of financial instability in the future.

recent impact of global monetary policy. In particular, the global financial market is now grappling with difficulties in funding the US dollar. This suggests that the Korean authorities should strengthen monitoring of changing trends in the international financial market, while prioritizing the implementation of FX-related macroprudential policies to secure enough US dollar liquidity in a crisis. As a result, it is necessary to maintain a resilient framework for the existing FX-related macroprudential policy of curbing excessive capital inflow, but to respond with caution to the trend of decreasing capital inflow. In this regard, it is also necessary to consider a modification of the existing macroprudential system in the external sector, which was introduced to mainly curb excessive capital inflow. [KIEP](#)

IV. Policy implications

Korea's FX-related macroprudential policies greatly contributed to reducing the systemic risk by curbing excessive capital inflows to Korea since its 2010 introduction of macroprudential measures. However, it is necessary to note that financial stability is threatened by potential risks different from the past, in addition to the