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Recent Issues in Capital Flows
—Trends in Capital Inflows to Japan & Asia and Challenges Ahead—

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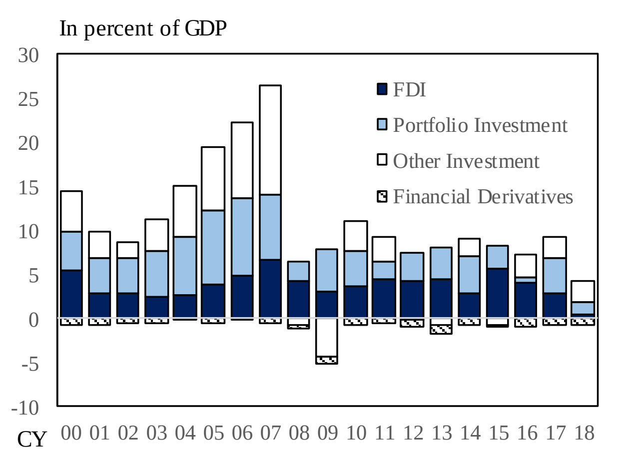
While international capital transactions can improve economic welfare through the efficient allocation of resources across borders, they can also lead to the destabilization of an economy due to sudden reversals of capital flows. Nevertheless, empirical analyses have shown mixed results depending on the countries and transactions on which the analyses have focused, which highlights that there are different effects depending on the type and contents of the capital transaction. This report introduces recent issues in capital flows and summarizes developments in capital inflows to Asia including Japan. From that perspective, in the medium to long term, Japan will continue to face the challenges in attracting inward FDI and maximizing spillover effects for economic growth, while emerging Asian nations need to develop domestic financial markets and manage the impact of excessive volatility of inward portfolio investments.

Introduction

In general, while international capital transactions[1] can improve economic welfare through the efficient allocation of resources across borders, they can also lead to the destabilization of an economy due to sudden reversals of capital flows. Nevertheless, empirical analyses have shown mixed results[2] depending on the countries and transactions on which the analyses have focused, which highlights the fact that there are different effects depending on the type and contents of capital transactions. In particular, foreign direct investment (FDI) and portfolio investments have supported capital flows, which have slowed down in terms of the percentage of global GDP since the global financial crisis [3] (Chart 1), which suggests the importance of having an accurate understanding of the details of these flows in evaluating their impact on the economy and their risks.

For instance, with respect to FDI, in recent years, there has been a rise in “phantom FDI” where investments are made through special purpose entities in tax havens[4] that have no real business activities. FDI is a driver of productivity gains and economic growth by transferring new technology and knowledge to recipient countries and their local firms. On the other hand, phantom FDI does not lead to productivity gains through technology and knowledge transfers. It should therefore be distinguished from normal FDI and care should be taken when making international comparisons. On portfolio investments, investments

[Chart 1] Global Capital Flows (Inflows)



Note: Other investments, which include cross-border loans, declined significantly after the global financial crisis reflecting factors such as deleveraging by European banks.

Source: IMF "Balance of Payments", "World Economic Outlook"

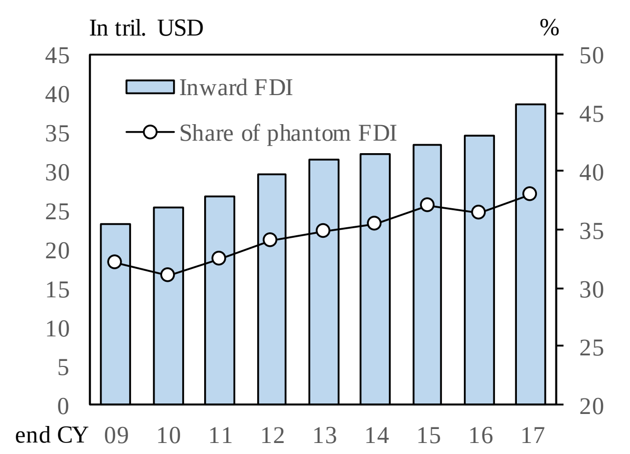
through investment funds are increasing and it has been noted that there are greater risks than pension funds and other medium- and long-term investments such as the risk of redemptions being triggered simultaneously if global risk sentiment worsens. In fact, capital outflows from emerging economies have accelerated in the wake of deteriorating risk sentiment associated with the spread of COVID-19.[5] This report introduces recent international discussions surrounding capital flows and summarizes the developments in capital inflows to Asia including Japan and future challenges. Given that more data needs to be accumulated in evaluating the impact of COVID-19, this report only briefly touches on the developments in capital inflows to emerging Asian nations.

Recent Issues in Capital Flows

Rise of phantom FDI

FDI has been considered a stable flow and it has been relatively robust against business cycles since it usually involves participation in management and its nature is that of a medium- and long-term investment. However, the proportion of FDI routed through tax havens[6] has increased in recent years and it has been noted that the volatility of these flows is greater than that of traditional FDI. According to an estimation by the IMF, those transactions account for about 40 percent of global inward FDI stock (Chart 2).[7]

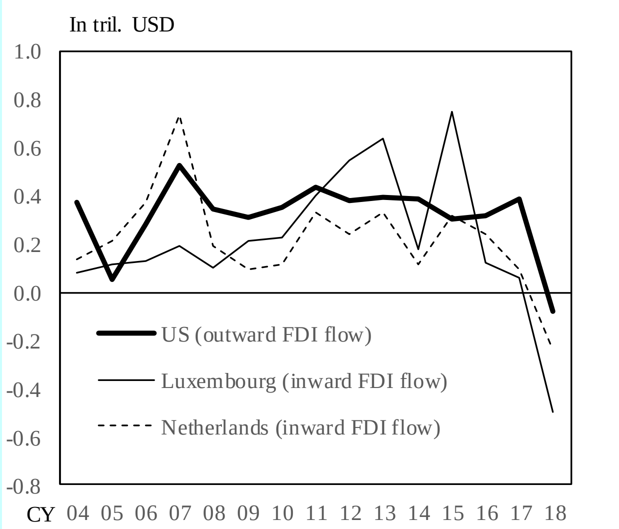
[Chart 2] Global Inward FDI Stock



Note: Phantom FDI is an estimate (the same applies hereafter).
Source: Damgaard et al. (2019)

In fact, outward FDI from the United States turned negative in 2018 as U.S. firms repatriated retained earnings (recorded as reinvested earnings in balance of payment statistics[8]) of foreign subsidiaries due to the U.S. tax reform (the 2017 Tax Cuts and Jobs Act).[9] It seems that there have been extremely large fluctuations on a global scale with inward FDI into low-tax jurisdictions such as Luxembourg and Netherlands also turning negative in 2018 (Charts 1 and 3).

[Chart 3] Impact of the U.S. Tax Reform on FDI



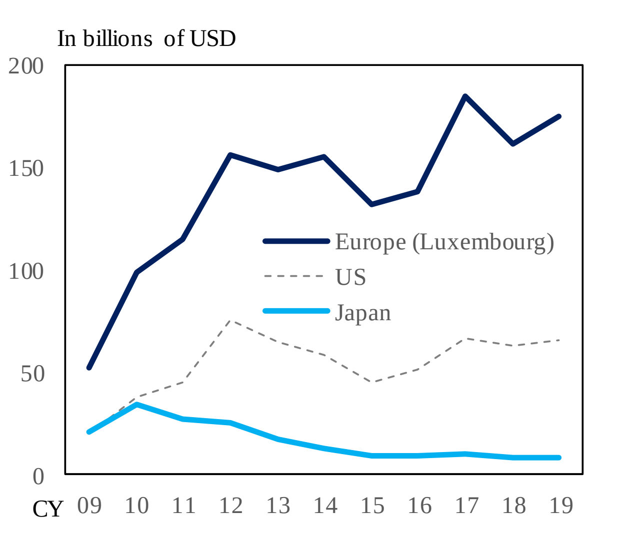
Note: Both inward and outward FDI are global totals.
Source: IMF "Balance of Payments"

Portfolio investments via investment funds

Portfolio investments can help emerging countries raise funds from abroad in the face of financing needs, which allows for the efficient allocation of resources and the expansion of financial capital markets. On the other hand, there is a risk of sudden reversals in capital flows in the wake of negative shocks in financial markets.[10]

In recent years, investments by foreign investors in emerging markets for relatively high yields have continued to increase amid the ongoing global low interest rate environment. It has been noted that capital flows could be easily affected by global factors as a result of that.[11] Investments in emerging market bonds via investment funds have also expanded in Europe and elsewhere (Chart 4).[12] Thus, it has been noted that there is a greater risk of redemptions being triggered simultaneously if global risk sentiment worsens compared to pension funds and other medium- and long-term investments.[13] Recently, the capital flows at

[Chart 4] Net Asset Value of Emerging Bond Funds



Note: Includes emerging bond mutual funds for the U.S., and investment funds which invest in emerging bonds for Japan and Luxembourg.
Source: The Investment Trusts Association of Japan, ICI, Central Bank of Luxembourg, Bank of Japan

risk approach has been proposed as a way to measure the probability distribution of those capital outflow risks (see the BOX for details).[14]

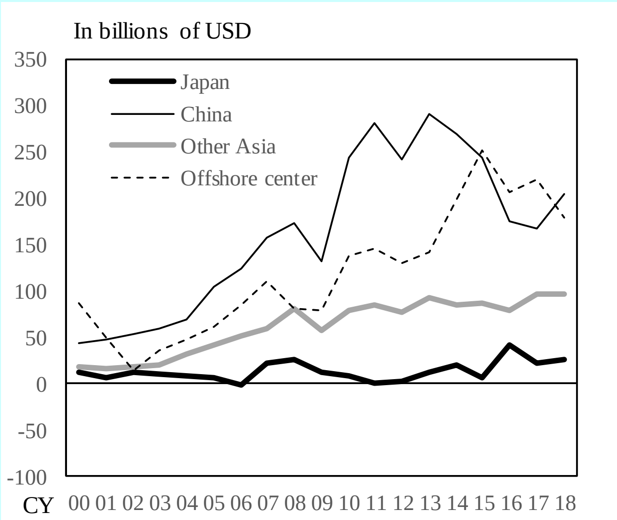
Trends in Capital Inflows to Japan and Asia

Next, this section summarizes the developments in capital inflows (FDI and portfolio investments) to Japan, emerging Asian nations (China and other nations[15]), and offshore financial centers (Hong Kong SAR and Singapore). In relation to the previous section, for instance, phantom FDI should be taken into account when comparing FDI in Japan, Singapore, and Hong Kong SAR, and it is important to take a look at investments through investment funds when assessing portfolio investment flows into emerging Asian nations.

FDI

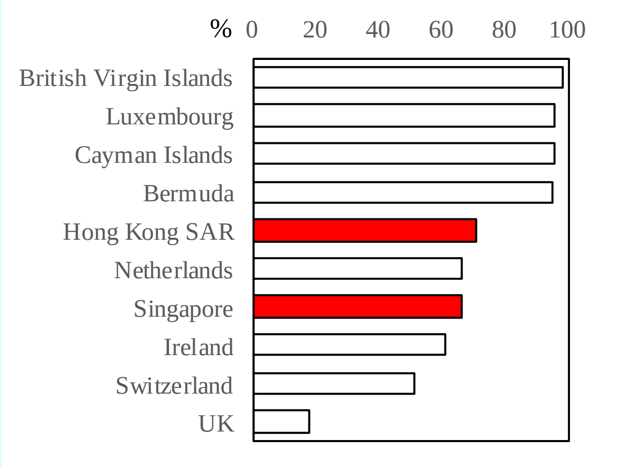
Inward FDI into China has expanded in line with its sustained high economic growth[16] and other emerging Asian nations have received steady FDI inflows. On the other hand, inward FDI into Japan has remained limited (Chart 5). At the same time, FDI flows into Hong Kong SAR and Singapore—known as low tax jurisdictions—have rapidly expanded. That said, it appears that many of those flows do not involve business activity, as the aforementioned IMF database suggests that phantom FDI accounts for about 70 percent of inward FDI stock in Hong Kong SAR and Singapore (Chart 6). However, even if phantom FDI is excluded, the inward FDI stock in Japan (percentage of nominal GDP) has been lower than other major countries (Chart 7).

[Chart 5] Inward FDI Flows into Asia



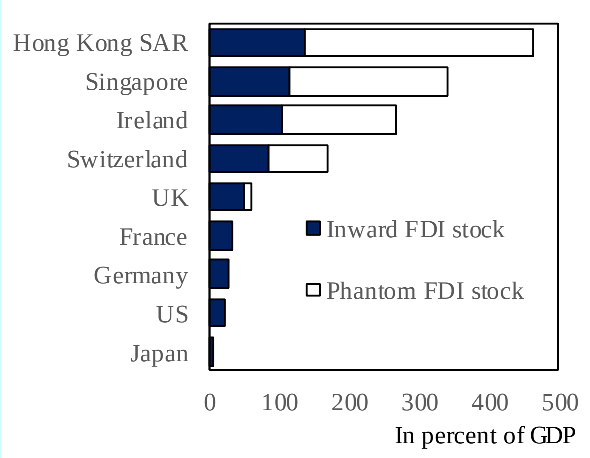
Source: IMF "Balance of Payments"

[Chart 6] Ratio of Phantom FDI to the Inward FDI Stock (as of end 2017)



Note: Ratio of Phantom FDI to inward FDI stock.
Source: Damgaard et al. (2019)

[Chart 7] Inward FDI Stock (as of end 2017)

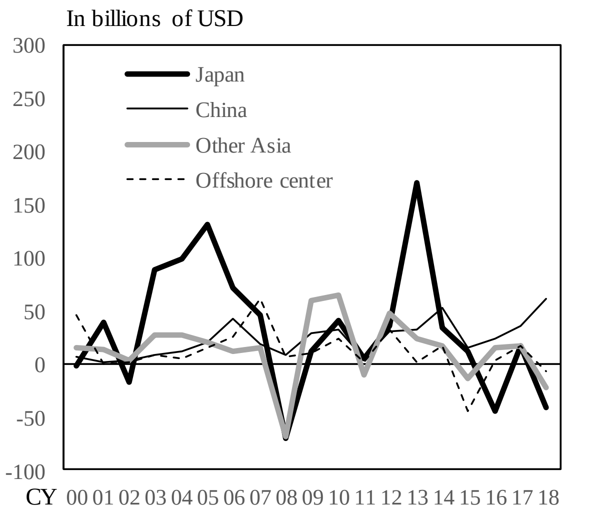


Source: Damgaard et al. (2019), IMF "World Economic Outlook"

Portfolio investments

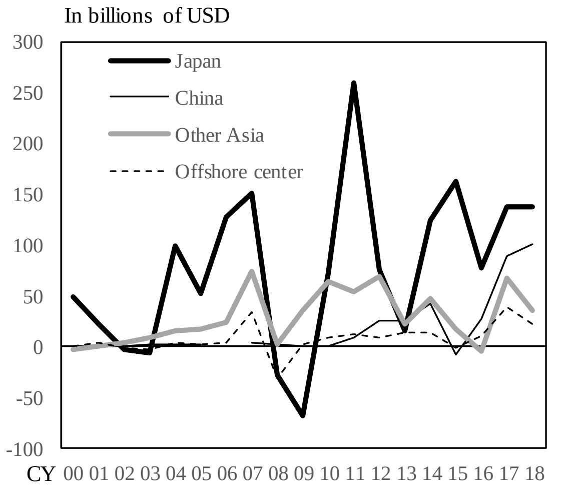
Regarding portfolio investments in equity and investment fund shares, China has received stable inflows in pace with the gradual opening of its economy. On the other hand, Japan and other emerging Asian countries recorded net sales in the summer of 2015 and early 2016 due to heightened uncertainty about the Chinese economy and in 2018 reflecting uncertainty related to the trade dispute between the U.S. and China, respectively (Chart 8). With respect to debt securities, emerging Asian nations continued to see inflows mainly due to the development of local currency denominated bond markets and investments through bond investment funds by foreign investors (Charts 9 and 10). In particular, inflows into China have rapidly increased since 2017 when Bond Connect was introduced. Meanwhile, it appears Japan has received inflows from foreign investors as the relative yield attractiveness of JGBs has remained elevated since early 2014 once foreign currency hedging costs are taken into account (the FX-swap implied yen rate from the U.S. dollar) reflecting the continuing elevated U.S. dollar hedging costs.

[Chart 8] Inward Portfolio Investments into Asia (Equity and Investment Fund Shares)



Source: IMF "Balance of Payments"

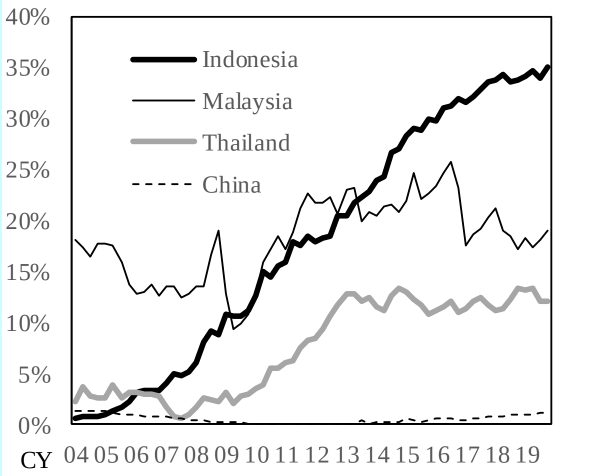
[Chart 9] Inward Portfolio Investments into Asia (Debt Securities)



Note: The figure for China in 2006 is missing.
Source: IMF "Balance of Payments"

Taking a look at developments in early 2020 (Chart 11), emerging Asian nations have experienced rapid capital outflows since February due to deteriorating sentiment stemming from concerns over COVID-19, but the pace of outflows has slowed since April with signs of gradual stabilization. When considering the

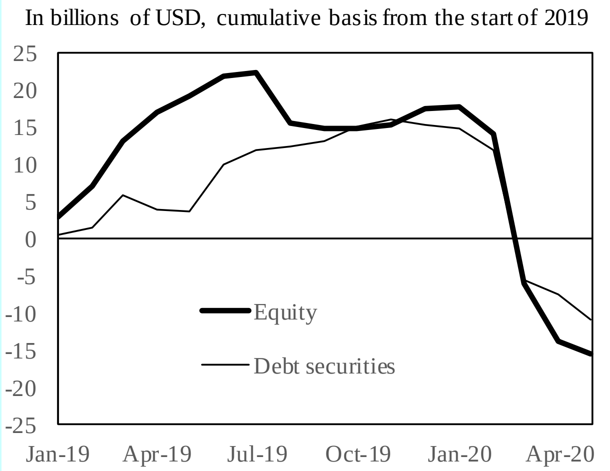
[Chart 10] Share of Foreign Holdings (Nonbanks) of Government Securities



Note: Includes estimates by the IMF. As at the 4th quarter of 2019.
Source: IMF "Sovereign Investor Base"

capital flows at risk framework, the estimated capital outflow risks for emerging Asian nations (BOX Chart) has increased due to a sharp widening of U.S. corporate bond spreads (intensified investor risk aversion), and emerging Asian nations actually saw capital outflows. Since then, the pressure on capital outflows has softened reflecting the decline in interest rates and the improvement of risk sentiment due to monetary easing by advanced economies. That said, the implication of the analyses is that there could still be uncertainty on whether the recovery will continue or not, as the probability distribution of future capital inflows has a fatter tail even after taking these scenarios into account.

[Chart 11] Inward Portfolio Investments into Emerging Asian Countries

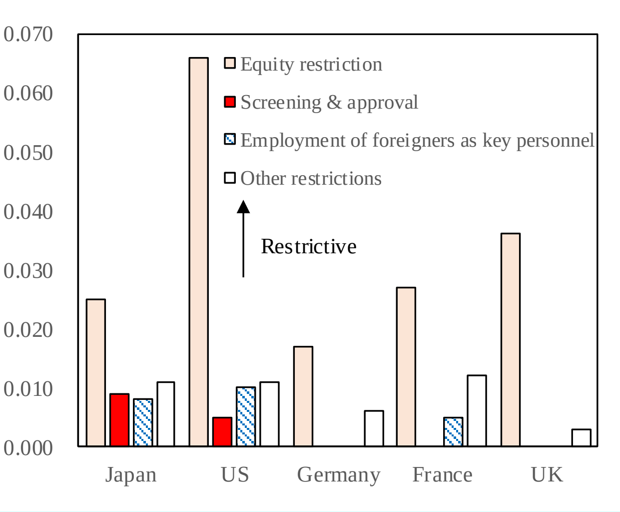


Note: As at May 2020. Including India, Indonesia, South Korea, and Thailand for equity, and India, Indonesia, and Thailand for debt.
Source: Institute of International Finance

Challenges Ahead and Implications

In terms of the composition of aggregate capital flows into Japan, the size of inward FDI is remarkably small, while that of inward portfolio investments is relatively large with Japan as the investment destination of global investors. Japan has faced challenges in attracting inward FDI for economic growth, which brings new technology and knowledge and risk capital from abroad. The OECD FDI regulatory restrictiveness index suggests that structural factors such as "government screening and approvals" and "the employment of foreigners as key personnel" have been obstacles in Japan (Chart 12). In addition to lowering effective corporate tax rates (Chart 13), [17] simplifying administrative procedures and improving the living environment for foreigners are keys to attracting FDI that could lead to productivity gains.[18] At the same time, local firms need to enhance the skills of their workers in attracting FDI and transferring technology and knowledge to local economies. In this context, the participation rate in adult education and training in Japan is not as high as other countries (Chart 14)[19], and that needs to be improved together with adopting new technology and enhancing foreign language communication skills.

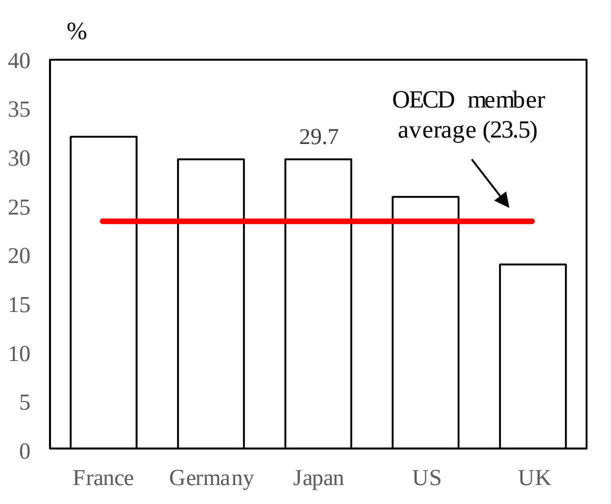
[Chart 12] FDI Regulatory Restrictiveness Index (as of 2018)



Note: The index uses values between 0 and 1. The smaller the value, the less restrictions exist.
Source: OECD

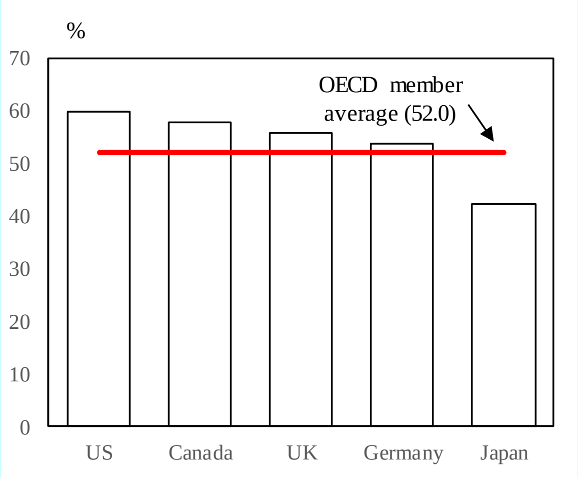
While emerging Asian nations are encouraged to attract capital inflows including FDI in a balanced manner, they need to limit the impact of excessive volatility of inward portfolio investments.[20] Looking back at past experience, emerging Asian nations relied on short-term foreign currency denominated loans at the time of the Asian financial crisis in the late 1990s, and it is believed that amplified the shock. In recent years, emerging Asian countries have developed local currency bond markets and strengthened resilience against shocks by accumulating foreign reserves.[21]

[Chart 13] Statutory Corporate Income Tax Rates (as of 2019)



Note: Includes national and local tax on corporate earnings.
Source: OECD

[Figure 14] Participation Rate in Adult Learning (as of 2012)



Note: Covers participation during the year preceding the survey.
Source: OECD PIAAC

Concluding Remarks

This report introduces recent international discussions in capital flows and summarizes the developments in capital inflows to Asia including Japan. With respect to FDI, phantom FDI routed through tax havens has increased and with respect to portfolio investments, capital flows through investment funds have expanded. In Asia, it appears the share of phantom FDI aimed at minimizing corporate tax is relatively high in Hong

Kong SAR and Singapore, and emerging Asian nations have received portfolio inflows through bond funds. These changes suggest the importance of understanding the types and contents of transactions when analyzing the impact of capital flows on the real economy.

In addition, these changes make it more important to develop data and expand monitoring methods. For instance, FDI needs to be separated into investments that accompany real business activities and those that do not, and identifying the ultimate investors is also important for recipient countries. Regarding portfolio investments—especially via investment funds—there could be cases where the ultimate investor country is different from the country where the funds are domiciled. Therefore, recording transactions based on the ultimate investors rather than only the location base is essential to understand the risk spillover mechanism after a shock.[22]

(BOX) Gauging Capital Outflow Risks by Capital Flows at Risk

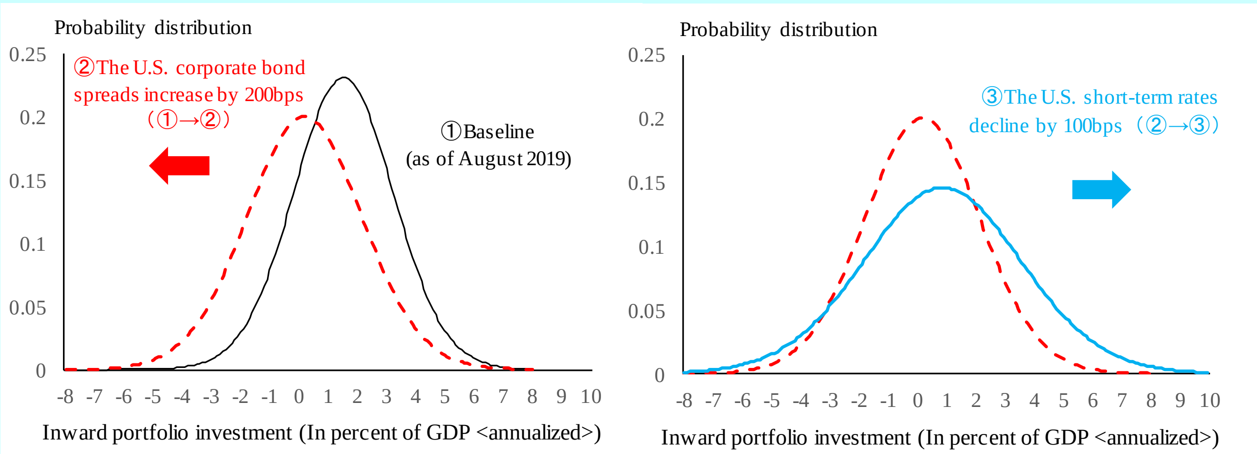
Recently, the IMF proposed a framework called "Capital Flows at Risk" to gauge capital outflow risks for emerging economies. This approach measures the conditional probability distribution of expected capital inflows given the determinant factors of capital flows following the GDP at Risk (GaR). That makes it possible to show tail risk by indicating that, for instance, it is possible capital flows over the next six months will decline below Z percent with a probability of Y percent.

This box employs a quantile regression where the dependent variable is capital flows into emerging Asian countries (percentage of GDP) over the next six months and the explanatory variables are global factors (the U.S. term premium, U.S. expected short-term interest rates, and U.S. corporate bond (BBB) spreads on a year-on-year change basis) and recipient country factors (Index of Industrial Production on a year-on-year change basis). The probability distribution obtained for each of those specific quantiles shows that the distribution shifts to the left in a scenario that takes a rise in the U.S. corporate bond spreads into consideration, which suggests the risk of a significant downturn in capital flows might increase (left figure in the box). On the other hand, the distribution shifts to the right if short-term interest rates fall due to factors such as a rate cut in the U.S., which could mitigate capital outflow risks (right figure in the box). However, it should be noted that the tail of the probability distribution spreads out, which indicates that there might continue to be elevated uncertainty.

—— Among the explanatory variables, U.S. long term interest rates represent a global investment benchmark, U.S. corporate bond spreads represent investor risk appetite, and indices of industrial production in recipient countries are used as a proxy for the economic attractiveness of those countries. U.S. long-term interest rates are divided into the term premium and expected short term rates as their impact on the capital flows differ.

—— Coefficients on expected short term rates vary across quantiles, which contribute to the widening tail of the probability distribution. However, care should be taken when interpreting those results from the viewpoint of the robustness and stability of the results of quantile regression analyses.

【BOX Chart】Capital Outflow Risks over the Next Six Months in Emerging Asian Countries



Note: The sample period ranges from January 2006 to August 2019 (latest capital flows over the coming six months correspond to the average from September 2019 to February 2020). The capital flows are the aggregate of India, Indonesia, South Korea, Malaysia, and Thailand. The indices of industrial production are weighted averages of each country's nominal GDP.

Source: Bloomberg, CEIC, Institute of International Finance, New York Fed.

[1] International capital transactions can be broadly classified into foreign direct investments, portfolio investments, and other investments. FDI generally corresponds to establishing/expanding a foreign subsidiary by a firm or acquiring shares of an existing foreign firm over a certain percentage with the purpose of participating in management (in principle, the criterion for determining the existence of a direct investment relationship in the balance of payment statistics is the

ownership of 10 percent or more of ordinary shares of voting stock).

On the other hand, portfolio investments correspond to investing in equity and bonds for asset management without participation in the management of the investment target. Other investments comprise all capital transactions other than FDI, portfolio investments, financial derivatives, and reserve assets, and that includes trade credit and loans and borrowings. This report focuses on FDI and portfolio investments.

[2] The impact of capital flows on economic growth depends on the type of flow and the characteristics of the recipient country. For instance, Osada, M. and Saito, M., "Financial Integration and Economic Growth: An Empirical Analysis Using International Panel Data from 1974-2007," (Bank of Japan Working Paper Series No. 10-E-5, 2010) suggests that FDI and equity investments have a positive impact on economic growth while debt, especially public debt, has a negative impact. Nevertheless, there is not necessarily a consensus with results of empirical analyses using macro data, and assessments using micro data such as firm-level data and sectoral data are being conducted.

On inward FDI into Japan, for instance, the White Paper on International Economy and Trade 2015 by the Ministry of Economy, Trade and Industry shows that on average the total factor productivity (TFP) of foreign affiliates already operating in Japan tends to be higher than that of Japanese companies.

[3] It has been noted that other investments declined significantly after the global financial crisis as a result of deleveraging by European banks.

[4] Since there is no uniform definition on tax havens, this report treats tax havens almost the same as low tax jurisdictions. The list of low tax jurisdictions is based on J. Damgaard and T.Elkjaer [2017] "The global FDI network: Searching for ultimate investors," IMF Working Paper, WP/17/258.

[5] With respect to the impact of COVID-19 on capital flows in emerging economies, see Chapter 3 of the IMF Global Financial Stability Report, April 2020.

[6] For instance, a firm could exempt or reduce withholding tax by establishing an intermediate holding company (a special purpose entity) in a low tax jurisdiction and using that when repatriating retained earnings in order to reduce the effective tax rate for the entire corporate group. In that case, investments in the intermediate holding company by the parent company and investments in a foreign subsidiary by the intermediate holding company would be recorded as FDI (since the share of voting rights is more than 10 percent). See aforementioned J. Damgaard and T.Elkjaer [2017] for details.

[7] See the following for details:

J. Damgaard, T. Elkjaer, and N. Johannesen [2019] "What is real and what is not in the global FDI network," IMF Working Paper, WP/19/274.

[8] FDI comprises (1) intrafirm transactions such as purchases of shares and loans to acquire long-term interest for management of foreign subsidiaries and (2) reinvested earnings that correspond to retained earnings of overseas subsidiaries.

[9] As a result of those tax reforms, the tax rate that applies when profits are repatriated by a U.S. firm from an overseas subsidiary has become zero with respect to new remittances and that rate has been significantly lowered for past retained earnings (35 percent to 15.5 percent on current assets such as cash and cash equivalents and to 8 percent on non-current assets).

[10] In addition, it has been pointed out that capital inflows could have a negative impact on competitiveness due to an appreciation of the real foreign exchange rate.

[11] Capital flows to emerging countries are subject to both global factors (push factors) such as interest rates and market risk sentiment in advanced economies and fundamentals of the recipient countries (pull factors) such as the current account balance and the debt situation in emerging countries and domestic economies and price developments.

[12] Some have noted that the balance sheet contraction of European banks after the global financial crisis contributed to the increase of capital flows via investment funds. In Europe, many investment funds are domiciled in Luxembourg and Ireland. For developments in European investment funds, see, for example, the Deutsche Bundesbank Monthly Report (October 2019).

[13] For instance, the IMF Global Financial Stability Report (April 2014) pointed out that open-end funds are likely to be engaged in herd behavior in the wake of market stress, which could accelerate the pace of fund outflows.

[14] For details, see the IMF Global Financial Stability Report (October 2018).

[15] This refers to five countries where weekly and monthly data are available (India, Indonesia, South Korea, Malaysia, and Thailand).

[16] A closer look indicates that the pace of inflows slowed down somewhat due in part to concern over the deceleration of the Chinese economy in 2015 and 2016.

[17] While the effective tax rates in Japan have been lowered, they are still higher than the average tax rates of OECD member countries where effective tax rates have been lowered at a faster pace. For instance, Yamato Honda, Mayumi Ojima, Shinichi Suzuki, and Yuuto Iwasaki "Trends and Challenges in Japan's Inward FDI (Japanese only)" (Bank of Japan Research Paper Series, 2010) indicates that the effective corporate tax rates in Japan were higher than the average of OECD members and Asian countries in 2013.

[18] For instance, the Cabinet Office's "INVEST JAPAN" FDI promotion committee proposes policy suggestions for promoting such inward FDI.

[19] See OECD [2019] "Getting Skills Right: Engaging low-skilled adults in learning". The data are based on the 2012 survey.

[20] For instance, see the following:

IMF [2019] "Facing the tides: Managing capital flows in Asia," IMF Departmental Paper, No. 19/17

[21] For resilience against capital flow fluctuations and monetary operations in Asia, see, for example, Iwai, S., Konaka, S., Hisamitsu, M., and Nonoguchi, H. "Capital Flow Dynamics and Central Banks-- Lessons from the Asian Financial Crisis and Challenges Ahead –" (Bank of Japan Review Series, 2017-E-5, 2017).

[22] The Ministry of Finance and the Bank of Japan have released the "Regional Direct Investment Position (Inward Investment) (Ultimate Investor)" since July 2018 to capture inward FDI by country on an ultimate investor basis (data beginning from end-CY2015 are available). For global capital flows, the following webpage releases estimations based on investor nationality.

https://www.globalcapitalallocation.com/data

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