

U.S. Dollar Funding Trend in the January-March Quarter of 2020 as Indicated by the BIS International Banking Statistics

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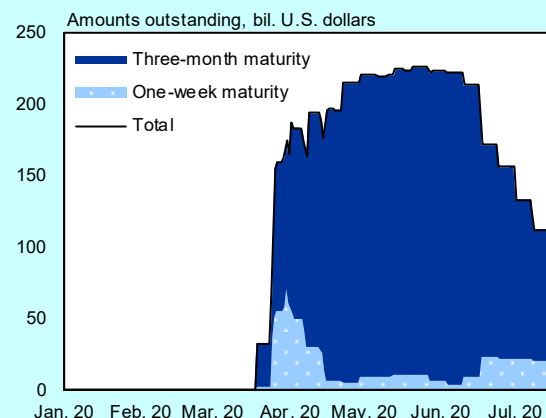
In March 2020, amid the COVID-19 pandemic, the fund supply-demand balance for the U.S. dollar became tight globally, causing changes in U.S. dollar-denominated international fund transactions conducted by financial institutions. This article provides an overview of the trend in U.S. dollar-denominated international fund transactions conducted by Japanese financial institutions during this current phase as indicated by the BIS International Banking Statistics (IBS). Data available from the statistics highlighted the following two points: (1) that Japanese banks obtained U.S. dollars from the Bank of Japan (BOJ) through U.S. dollar funds-supplying operations and transferred them to U.S. branches via the inter-office account, and (2) that in the United States: in line with this flow of funds, claims vis-à-vis official sector, including reserve deposits with the U.S. Federal Reserve Bank (FRB), and loans to business corporations (drawdown of committed credit line) increased.

Introduction¹

In March 2020, amid the COVID-19 pandemic, international financial markets were significantly destabilized. In the bond market and the money market in the United States, interest rates showed volatile developments, market functions weakened, and liquidity declined. The effects of these instabilities spread globally through chains of fund transactions.² In light of this situation, the six major central banks (the central banks in Japan, the United States, Europe, the United Kingdom, Switzerland and Canada) that have liquidity swap line arrangements took a coordinated action to enhance U.S. dollar funds-supplying operations in mid- to late March. More specifically, they reduced loan rates for U.S. dollar funds-supplying operations from overnight index swap (OIS) rates + 50 bps to OIS + 25 bps, and introduced operations with a relatively long maturity of three months (84-day maturity operations), and increased the frequency³ of the one-week maturity operations from the conventional once a week to once a day.

Under those circumstances, the amount of U.S. dollars funded by Japanese financial institutions through U.S. dollar funds-supplying operations increased steeply, starting in mid-March. As the U.S. dollar funding market has subsequently been regaining stability, the outstanding amount of U.S. dollar funds-supplying operations, which serve as a backstop at times of market instability, has been declining since

[Chart 1] Outstanding amount of BOJ's U.S. dollar funds-supplying operations



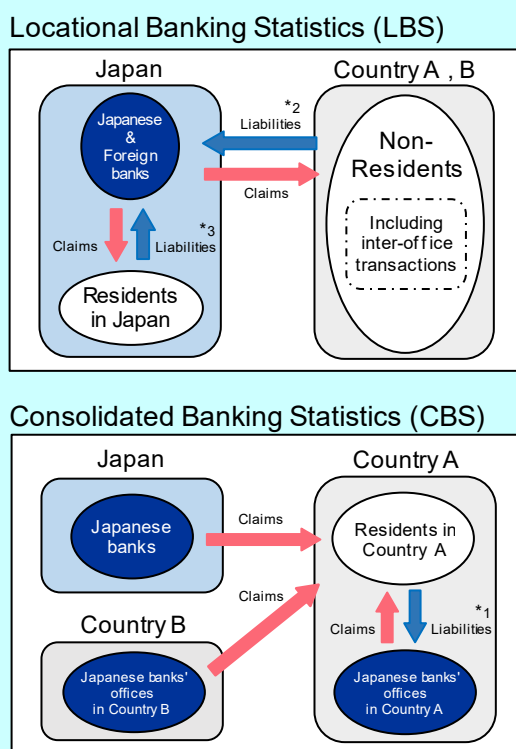
Source: BOJ

June (Chart 1).

This article provides an overview of how U.S. dollar-denominated international fund transactions conducted by Japanese banks during the current phase are captured by the BIS International Banking Statistics (IBS), which is prepared and published jointly by the Bank for International Settlements (BIS) and central banks. The IBS shows the trends in internationally active banks' cross-border fund transfers and their credit exposures, among other things. It is comprised of two sets of statistics: (i) the Locational Banking Statistics (LBS), which cover the trend in foreign claims and liabilities held by banks located in the reporting countries (non-consolidated basis), and (ii)

the Consolidated Banking Statistics (CBS), which cover the trend in international credit exposures of banks headquartered in the reporting countries (consolidated basis).⁴ As these two sets of statistics cover different areas of banking activity, using them in combination makes it possible to identify the trends in fund flows and credit exposures in more detail⁵ (Chart 2).

[Chart 2] Concept charts of BIS International Banking Statistics



Notes: 1. Transactions in Japan under the LBS cover only foreign currency-denominated transactions.
 2. The concept chart of the CBS depicts a case of transactions with counterparties in Country A. Inter-office transactions are excluded under the CBS. Regarding local liabilities in Country A, only local currency-denominated transactions are covered.
 3. Liabilities marked with *1, *2, and *3 roughly correspond to liabilities (i) to (iii) in Chart 3. Liabilities (iv) in Chart 3 are included in liabilities marked with *2 and *3.

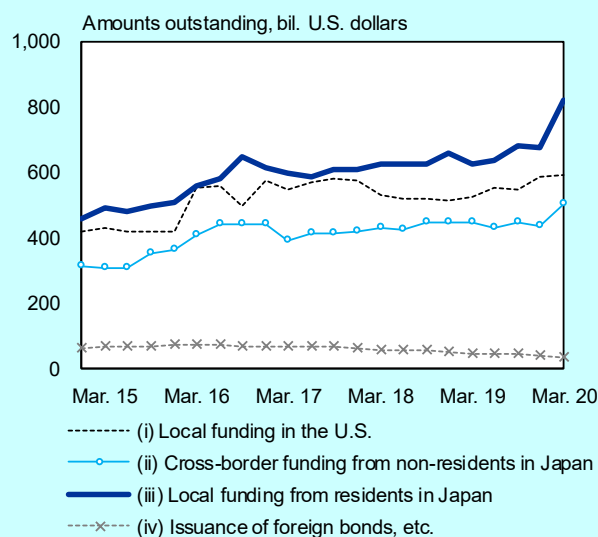
U.S. Dollar-denominated Liabilities (Funding Activities)

Data on U.S. dollar-denominated liabilities

First, we will look at the trend in U.S. dollar-denominated liabilities held by Japanese banks (which represent the result of their funding activities). The IBS includes the following four data series concerning U.S. dollar-denominated liabilities: (i) the outstanding amount of local liabilities in the United States; (ii) the outstanding amount of cross-border liabilities vis-à-vis non-residents in Japan; (iii) the outstanding amount of

local liabilities vis-à-vis residents in Japan; and (iv) the outstanding amount of foreign bonds issuance, etc.^{6,7} (Charts 2 and 3).

[Chart 3] Trend in U.S. dollar-denominated liabilities held by Japanese banks



Note: (i) to (iv) represent the outstanding amount of the following items:
 (i) Local liabilities of foreign affiliates in local currency to the U.S. counterparties under the CBS,
 (ii) U.S. dollar-denominated cross-border liabilities vis-à-vis non-residents (excluding inter-office transactions of banks) under the LBS,
 (iii) U.S. dollar-denominated local liabilities vis-à-vis residents under the LBS,
 (iv) U.S. dollar-denominated external liabilities (unallocated) under the LBS.

Sources: BOJ, "BIS Locational Banking Statistics" and "BIS Consolidated Banking Statistics"

Increased funding through U.S. dollar funds-supplying operations

Looking at the trends in those data series, we see that between the end of December 2019 and the end of March 2020, including a period of significant instability in international financial markets due to the COVID-19 pandemic, the outstanding amount of U.S. dollar-denominated local liabilities vis-à-vis residents in Japan ((iii) above) has recorded a particularly notable increase.

This increase is presumed to be attributable in part to increased funding through the U.S. dollar funds-supplying operations that were conducted by the BOJ in order to support the smooth functioning of the U.S. dollar funding market. In the U.S. dollar funds-supplying operations, the BOJ extends U.S. dollar-denominated loans to Japanese financial institutions after obtaining funds from the Federal Reserve Bank of New York through U.S. dollar-yen swap transactions. When Japanese banks have obtained U.S. dollars through the U.S. dollar funds-supplying operations,

those funds are recorded as U.S. dollar-denominated liabilities vis-à-vis the BOJ, which is a resident in Japan. As a result, statistically, the outstanding amount of U.S. dollar-denominated liabilities vis-à-vis residents in Japan increases under the LBS.⁸

An upsurge in the outstanding amount of liabilities vis-à-vis residents in Japan under the IBS like the abovementioned increase was also observed between the end of September and the end of December 2008, when the impact of the global financial crisis deepened. At that time, likewise, funding through U.S. dollar funds-supplying operations increased significantly. To compare the scale of funding in the period leading to the end of March 2020, when the environment for U.S. dollar funding became unstable, we see some similarities to the scale of funding during the global financial crisis (Chart 4-(i)).

U.S. Dollar-denominated Claims (Fund Management)

Transfer of U.S. dollar funds from headquarters to U.S. branches

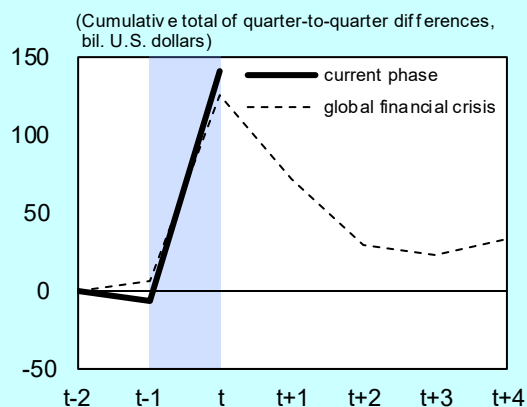
Next, we will look at what types of claims Japanese banks increased in exchange for taking on more U.S. dollar-denominated liabilities at their headquarters. Generally speaking, internationally active financial institutions fund U.S. dollars at locations where the funding environment is relatively favorable and transfer them to offices where fund needs are strong within the same banking group. When such inter-office transactions are conducted across national borders, the flow of funds is captured by the LBS. The transfer of U.S. dollar funds from headquarters to foreign branches are recorded in the "U.S. dollar-denominated claims vis-à-vis non-residents (bank sector - of which related offices)."⁹

Those data series during the current phase indicate that as was the case at the time of the global financial crisis, Japanese banks have been transferring most of the U.S. dollars¹⁰ funded through U.S. dollar funds-supplying operations to foreign branches via the inter-office accounts (Chart 4-(ii)). The main destination of the U.S. dollar funds transferred to foreign branches is the United States. A regional breakdown shows that inter-office claims on U.S. branches accounted for 73.5% of the total increase in transfers from Japanese banks' headquarters to foreign branches between the end of December 2019 and the end of March 2020 (Chart 4-(iii)). According to the globally aggregated IBS data, the total increase in inter-office claims on the

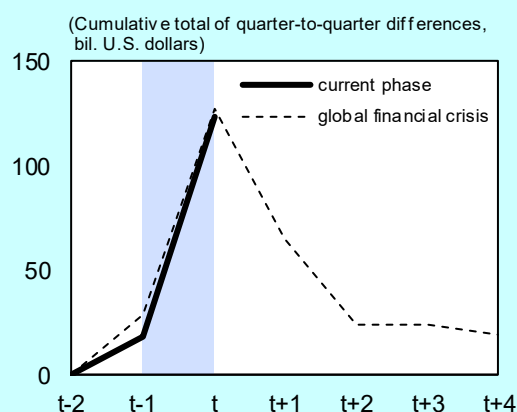
[Chart 4] U.S. dollar-denominated claims and liabilities in the current phase and during global financial crisis

"t" period during
 - current phase: the end of Mar. 2020
 - global financial crisis: the end of Dec. 2008

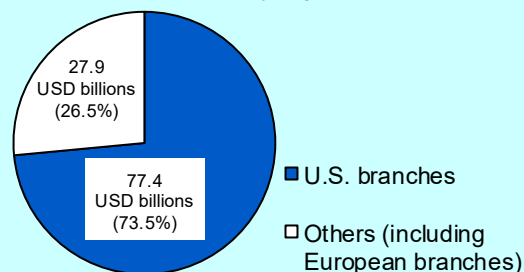
(i) Funding activities (U.S. dollar-denominated liabilities vis-à-vis residents in Japan)



(ii) Fund management (U.S. dollar-denominated claims vis-à-vis non-residents in Japan <bank sector - of which related offices>)



(iii) Quarter-to-quarter differences broken down by region

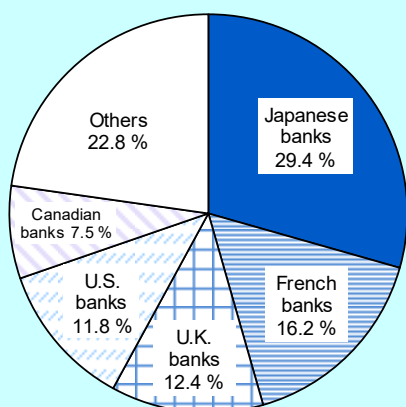


Note: "t+1" period on the horizontal axis in each of (i) and (ii) represents the quarter that followed "t" period, while "t-1" period represents the quarter that preceded it. The shaded areas in the above charts represent the peaks of funding activities and fund management during each phase.

Source: BOJ, "BIS Locational Banking Statistics"

United States broken down by bank nationality in the same period shows that Japanese banks had the largest share with 29.4%, followed by French banks (16.2 %) and U.K. banks (12.4%) (Chart 5). In this period, what types of claims Japanese banks increased in the United States by using additional funds transferred to U.S. branches?

[Chart 5] The increase in inter-office claims vis-à-vis U.S. branches broken down by bank nationality



Note: This chart shows the bank nationality breakdown of the increase in funds (on a gross basis) transferred to the United States via the inter-office account. The claims covered by the data include not only funds transferred from headquarters but also those transferred from non-U.S. foreign branches located in countries other than headquarters' locations.

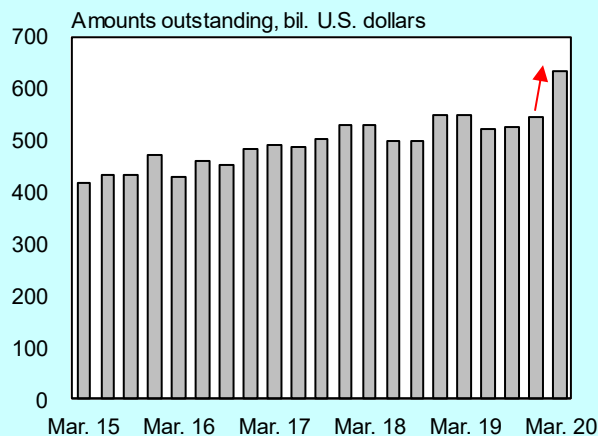
Source: BIS, "Locational Banking Statistics"

U.S. dollar-denominated local claims held by Japanese banks' U.S. offices

U.S. dollar-denominated local claims of Japanese banks' U.S. offices can be identified through the figures in the "Local claims of foreign affiliates in local currency" (LCLC) item under the CBS. While those figures cover banks' credit exposures not only by U.S. branches but also by U.S. subsidiaries, transactions within the same banking group are excluded.

According to the data, between the end of December 2019 and the end of March 2020, the amount of LCLC held by Japanese banks' U.S. offices recorded a marked increase of around 88.0 billion U.S. dollars (Chart 6). Given that the increase in U.S. dollar funds transferred to U.S. branches in the same period was around 77.0 billion U.S. dollars as shown in Chart 4-(iii), we may presume that most of the funds transferred from Japanese banks' headquarters to U.S. branches were used for local fund management in the United States.

[Chart 6] Changes in LCLC held by Japanese banks' U.S. offices



Note: On an immediate borrower basis.

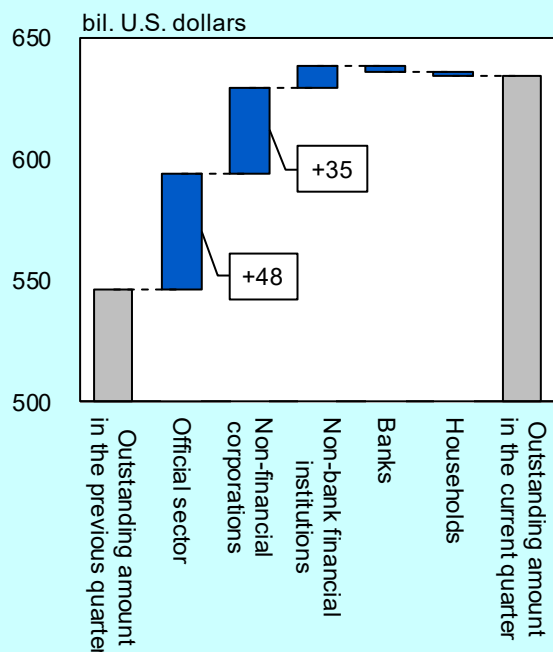
Source: BOJ, "BIS Consolidated Banking Statistics"

U.S. dollar-denominated local claims broken down by counterparty sector

With respect to LCLC, which is shown in Chart 6, until recently, there was not a data series broken down by counterparty sector. This made it difficult to conduct a more detailed statistical analysis of claims held by Japanese banks' foreign offices vis-à-vis local counterparties. However, as part of international initiative to enhance information on the global financial linkages, the BOJ started to collect sectoral breakdown data of LCLC with cooperation from some major Japanese banks, starting with data as of end-March 2018. Based on these newly collected data, we attempted to estimate the data that included overall Japanese reporting banks under the IBS and identify the trend in Japanese banks' LCLC in the U.S. broken down by counterparty sector.

According to a sectoral breakdown of the increase in LCLC held by Japanese banks' U.S. offices between the end of December 2019 and the end of March 2020, claims vis-à-vis official sector, including general governments and central banks, made a positive contribution of around 48.0 billion U.S. dollars, followed by claims vis-à-vis non-financial corporations, including business corporations, with a positive contribution of around 35.0 billion U.S. dollars. These two sectors together account for most of the increase in LCLC (Chart 7).

[Chart 7] Factors of the increase in LCLC held by Japanese banks' U.S. offices
(breakdown by counterparty sector of the quarter-to-quarter differences)



Notes: 1. On an immediate borrower basis. The figures broken down by sector are estimates.
2. The outstanding amount in the previous quarter represents the amount at the end of December 2019, while the outstanding amount in the current quarter represents the amount at the end of March 2020.

Source: BOJ, "BIS Consolidated Banking Statistics"

Factors behind the increase in LCLC vis-à-vis official sector

By definition, the outstanding amount of claims vis-à-vis official sector under the CBS mainly represents claims vis-à-vis general governments, central banks, and international organizations. Although a more detailed breakdown is statistically unavailable, it is assumed that foreign government bonds and central bank current account deposits make up most of the total amount. In this respect, if we look at the trend in claims held by non-U.S. banks' U.S. offices in this period based on another data set¹¹ published by the FRB, the outstanding amount of reserve deposits with the FRB increased steeply despite the absence of a significant change in the outstanding amount of U.S. government bonds. This suggests the possibility that Japanese banks may have deposited additional reserves with the FRB amid the instability of the environment for U.S. dollar funding.

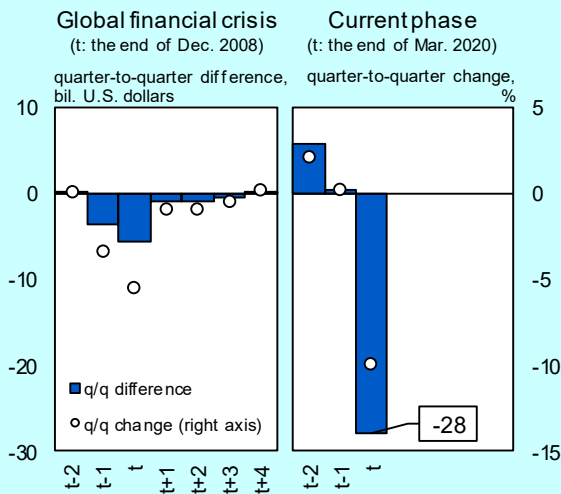
Factors behind the increase in LCLC vis-à-vis non-financial corporations

By definition, the outstanding amount of claims vis-à-vis non-financial corporations mainly represents claims vis-à-vis privately and publicly owned corporations as well as limited liability partnerships, most of which are loans to corporations and securities issued by business corporations. One possible factor behind the increase in LCLC held by Japanese banks' U.S. offices vis-à-vis non-financial corporations during the current phase is business corporations' shift in the funding tool, partly from market-based funding to borrowings from Japanese banks due to the increasingly harsh environment for U.S. dollar funding.¹²

One piece of evidence supporting this assumption is the trend in "credit commitments", an off-balance sheet item for which data collection is conducted separately under the CBS. This item refers to the figure calculated by subtracting the amount of disbursed loans from the amount of committed credit line (contracts whereby banks pledge to extend loans upon the request of the counterparties, such as business corporations, up to a predetermined limit within a specified time frame). If business corporations' emergency fund needs have grown because of a contingency and if the drawdown of committed credit lines increases, the outstanding amount of credit commitments decreases on the one hand and that of banks' claims vis-à-vis non-financial corporations increases on the other.

The outstanding amount of credit commitments vis-à-vis U.S. counterparties recorded a marked decline of around 28.0 billion U.S. dollars from the end of December 2019 to the end of March 2020 (Chart 8). The margin of decrease roughly corresponds to the margin of increase in LCLC held by Japanese banks' U.S. offices vis-à-vis non-financial corporations shown in Chart 7.¹³ Although we can't identify the factors of this decline in credit commitments from the IBS, it is often said that at that time, business corporations located in the United States rapidly stepped up efforts to secure working capital or cash on hand as a precautionary measure in response to the shrinkage of economic activity and growing uncertainties. Thus the statistical data suggests the possibility that the rapidly increased fund needs of corporations were partially covered by the withdrawal of funds from committed credit line arranged with Japanese banks.

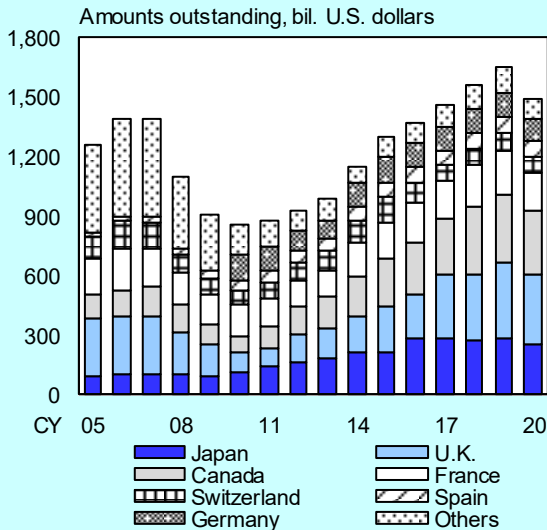
[Chart 8] Credit commitments to counterparties in the United States in the current phase and during global financial crisis



Notes: 1. On an ultimate risk basis.
 2. "t+1" period on the horizontal axis represents the quarter that follows the "t" period, while "t-1" period represents the quarter that precedes it.

Source: BOJ, "BIS Consolidated Banking Statistics"

[Chart 9] Trends in credit commitments to counterparties in the United States broken down by bank nationality



Notes: 1. On an ultimate risk basis. The figures are as of end-December of relevant years (the figures for 2020 are as of end-March).
 2. Excluding U.S. banks. The figures for Germany before 2010 are included in the figures for "others."

Source: BIS, "Consolidated Banking Statistics"

Compared with the situation at the time of the global financial crisis, the decrease in credit commitments during the current phase is more conspicuous. In contrast to European banks,¹⁴ which have promoted deleveraging since the global financial crisis, Japanese banks have expanded their global activities and increased their presence in the U.S.

market. According to comparison of non-U.S. banks' credit commitments to U.S. counterparties by bank nationality based on the globally aggregated IBS data, Japanese banks' credit commitments increased from around 98.0 billion U.S. dollars (a share of 8.9%) at the end of 2008 to around 281.0 billion U.S. dollars (17.0%) at the end of 2019, just before the onset of the current phase (Chart 9). One probable factor behind the conspicuous increase in Japanese banks' claims vis-à-vis non-financial corporations during the current phase is the increase in their presence in the U.S. market.¹⁵

Contributions of IBS Data Enhancements to Our Analysis

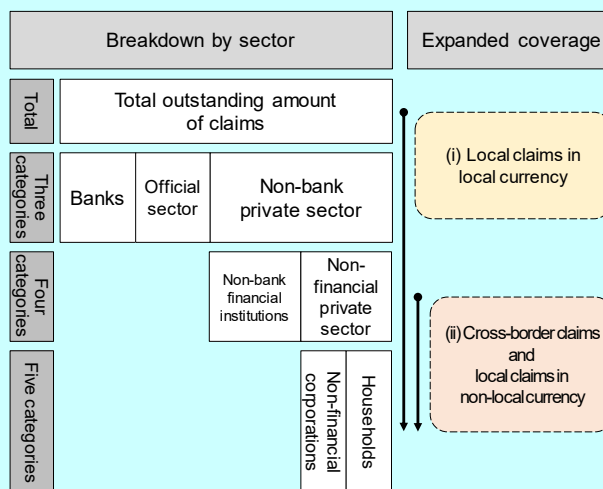
In this article, we provided an overview of how international fund transactions conducted by Japanese banks are captured by the IBS, focusing on flows of funds between the end of December 2019 and the end of March 2020, including a period of significant instability in international financial markets due to the COVID-19 pandemic.

In some respects, the analysis in this article was made possible by the results of the data enhancement efforts that have been made since the global financial crisis to identify financial and economic vulnerabilities. At the G20 Finance Ministers and Central Bank Governors Meeting in November 2009, a set of recommendations was adopted in a report titled "The Financial Crisis and Information Gaps." This acted as a springboard for the launch of the Data Gaps Initiative to make data enhancements that contribute to effective financial supervision and policy actions under the leadership of the International Monetary Fund and the Financial Stability Board. Regarding the IBS, the enhancement of sector-by-sector data covering the non-bank sector has been promoted as a priority task.

As part of this international initiative, the BOJ, with cooperation from some major banks, started collecting detailed sectoral breakdown data under the CBS, starting with the data as of end-March 2018, as mentioned earlier. Although data are collected only from some Japanese banks, the collected data cover most of the overall credit exposures of the reporting financial institutions in Japan of the IBS. As a result, it has become possible to estimate: with sufficient accuracy, the sectoral breakdown for overall Japanese banks by calculating the proportional ratios of sector-by-sector shares under certain assumptions based on figures obtained from the cooperating banks and by multiplying the total figures for other banks with those ratios¹⁶ (Charts 10 and 11).

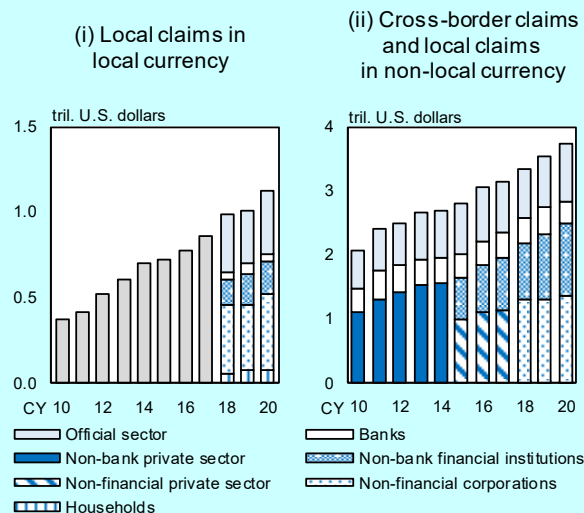
Not only the IBS but many public statistics have undergone several rounds of enhancement in the past following the Asian financial crisis and the global financial crisis, among other international financial and economic contingencies. Going forward, it is important to make continuous efforts to accurately identify financial market trends by maximizing the use of existing statistical information and enhancing or revising statistics in accordance with structural changes in the financial sector at the same time.

[Chart 10] Expansion of the coverage of sector-by-sector data due to data enhancements to the CBS



Note: The above chart depicts sector classification on an immediate borrower basis. In 2018, a five-category classification was introduced for (i) local claims in local currency, while the existing four-category classification for (ii) local claims in non-local currencies was replaced with a five-category classification. On an ultimate risk basis, the existing four-category classification was replaced with a five-category classification, as in the case of (ii).

[Chart 11] Trends in external claims held by Japanese banks broken down by sector



Notes: 1. The figures are as of end-March of relevant years and on an immediate borrower basis. The figures for 2018 and the following years include estimates.
2. In 2018, the non-financial private sector was further divided into non-financial corporations and households, but the amount of claims vis-à-vis households is miniscule.

Source: BOJ, "BIS Consolidated Banking Statistics"

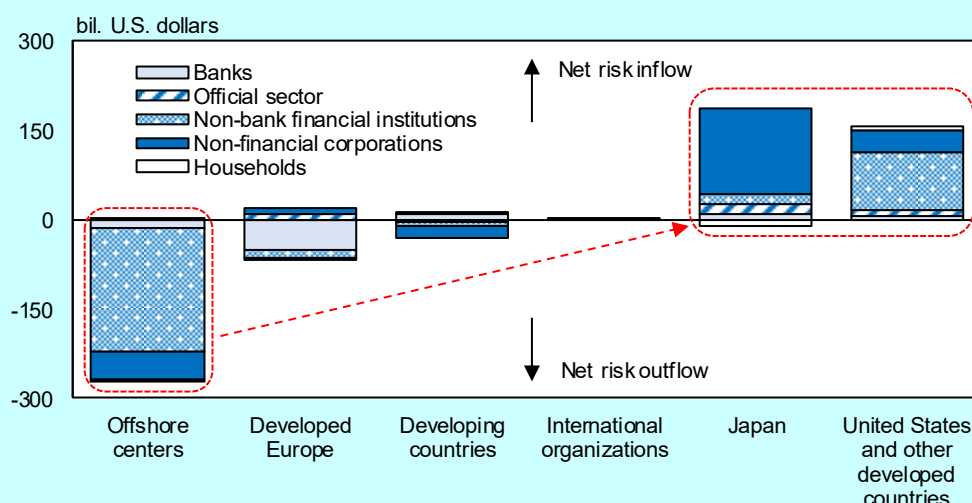
BOX: Net risk transfer related to external credit exposures broken down by region and sector

Credit exposures captured by the BIS Consolidated Banking Statistics (CBS) include exposures to various forms of financial instruments, such as bonds, loans, and securitized products. In the case of a securitized product, the national location (e.g., Japan) of the underlying assets (e.g., accounts receivable) may not necessarily be the same as the national location (e.g., an offshore center like the Cayman Islands) of the special-purpose company (SPC) that is the direct counterparty to the transaction. In cases like that, the fundamental risk source of credit exposures to offshore counterparties, in fact, rests in non-offshore centers.

The outstanding amount of external claims under the CBS is identified through two approaches: (i) an ultimate risk basis approach, which compiles data on the basis of where the final risk lies, and (ii) an immediate borrower basis approach, which focuses on the location of direct transactional counterparties. From the viewpoint of "net risk transfer," defined as the figure obtained by subtracting the amount of external claims on an immediate counterparty basis from the amount on an ultimate risk basis, the BIS analyzes the global picture of risk inflows and outflows across regions.¹ Under this analysis framework, in cases where the amount of external claims vis-à-vis a particular region is larger on an ultimate risk basis than on an immediate counterparty basis, the credit risks involved in this region is considered to have been transferred to another region.

Following the recent enhancement of Japanese sectoral breakdown data, we attempted to capture information on the final location of risks involved in Japanese banks' external credit exposures on a sector-by-sector basis—in addition to the existing region-by-region basis—based on the abovementioned analysis framework that focuses on "net risk transfer." As a result, regarding net risk transfer related to Japanese banks' external credit exposures as of end-March 2020, we found that there was a net risk outflow with respect to exposures to non-bank financial institutions in offshore centers, while there was a net risk inflow with respect to exposures to non-bank financial institutions in the United States and other developed countries and non-financial corporations in Japan (BOX Chart). This suggests the possibility that risks involved in Japanese banks' credit exposures to non-bank financial institutions (e.g., SPCs and investment funds) in offshore centers may in fact originate in non-financial corporations in Japan and non-bank financial institutions in the United States and elsewhere.

[BOX Chart] Net risk inflows and outflows regarding Japanese banks' external claims broken down by region and sector



Notes: 1. The above figures are as of end-March 2020. The figures broken down by sector are estimates.

2. The risk inflow/outflow amount is defined as the figure calculated by subtracting the outstanding amount of claims on an immediate borrower basis from the amount on an ultimate risk basis.

Source: BOJ, "BIS Consolidated Banking Statistics"

¹ Bank for International Settlements [2017] "Risk transfers in international banking," *BIS Quarterly Review*, December 2017

* Currently at the Personnel and Corporate Affairs Department

¹ For prior revisions of the IBS and the outlines of statistical data, please refer to the following:

- Bank of Japan Financial Markets Department [1999] “International Financial Markets as Viewed from BIS Statistics: Changes in the International Flow of Funds in the 1990s”
- Nakahata, Kouda and Hishikawa [2002] “BIS Kokusai Yoshin Toukei no Tokuchouten to Minaoshi ni Muketa Torikumi” (Highlights of the BIS international banking statistics and Efforts for Enhancements) <Available only in Japanese>, *Bank of Japan Market Review Series*, 02-J-2
- Hirano, Hayakawa, Saitou and Shigemi [2003] “Arata na BIS Kokusai Yoshin Toukei no Gaiyou— Yori Takakuteki na Country Risk no Haaku ni Muketa Kokusaiteki na Torikumi—” (Highlights of the New BIS international banking statistics-worldwide efforts for capturing country risks from various aspects-) <Available only in Japanese>, *Bank of Japan Market Review Series*, 03-J-8
- Inoue, Yoshizaki, Sasamoto and Shiotani [2017] “Enhancements to the BIS International Banking Statistics and Highlights of the Results of the Statistics in Japan,” *Bank of Japan Review Series*, 17-E-1
- Saito, Hiyama, and Shiotani [2018] “International Comparison of the BIS International Banking Statistics: Estimates of the Positions Excluding Trustee Business,” *Bank of Japan Review Series*, 18-E-2

² For the impact of the COVID-19 pandemic on financial markets, please refer to the following:

- Okamoto [2020] “Beikoku Kokusai Shijou no Fuanteika to Wagakuni Kokusai Shijou Eno Eikyuu—Shingata Korona Uirusu Kansenshou no Kakudai to Kinyu Shijou (i)” (Destabilization of the U.S. Government Bond Market and Impact on the Japanese Government Bond Market in Japan—COVID-19 Pandemic and Financial Markets (i)) <Available only in Japanese>, *Bank of Japan Review Series*, 20-J-9
- Kawasumi and Kataoka [2020] “Beikoku Tanki Kinyu Shijou no Fuanteika to Gurobaru na Hakyu—Shingata Korona Uirusu Kansenshou no Kakudai to Kinyu Shijou (ii)” (Destabilization of the U.S. Money Market and Global Repercussions—COVID-19 Pandemic and Financial Markets (ii)) <Available only in Japanese>, *Bank of Japan Review Series*, 20-J-10

³ The frequency of the one-week maturity operations was increased to once a day in March 2020. In July, the frequency was reduced to three times a week and to once a week in September and later.

⁴ The BIS International Banking Statistics are quarterly statistics compiled on a global basis by BIS with cooperation from central banks. The BOJ cooperates with the compilation by reporting to BIS numerical data regarding banks located in Japan and banks headquartered in Japan. In order to facilitate public use of the statistical information thus collected, the BOJ publishes its own report titled the “Results of BIS International Locational Banking Statistics and International Consolidated Banking Statistics in Japan,” which covers numerical data regarding the reporting banks in Japan. As for the details of the results, please refer to the following page of the BOJ website at: <https://www.boj.or.jp/en/statistics/bis/ibs/index.htm/>

⁵ As the BIS International Banking Statistics contain detailed data series regarding counterparty nationality and currency denomination, they are useful for identifying the trends in fund flows and credit exposures. On the other hand, they do not contain information regarding matters such as the specifics of fund management, funding instruments and maturity mix. For the BOJ's assessment of Japanese financial institutions' foreign currency fund liquidity risk, please refer to the Financial System Report at: <https://www.boj.or.jp/en/research/brp/fsr/index.htm/>

⁶ “(iv) The outstanding amount of foreign bonds issuance, etc.” does not include bank holding companies' funding through the

issuance of foreign bonds. U.S. dollars funded by Japanese banks with respect to (i) to (iv) do not include those funded at non-U.S. foreign offices.

⁷ Bank for International Settlements [2018] “The geography of dollar funding of non-US banks,” *BIS Quarterly Review*, December 2018

⁸ This item includes the outstanding amount of dollar-denominated liabilities vis-à-vis residents that have been taken on through funding instruments other than U.S. dollar funds-supplying operations, such as U.S. dollars funded by Japanese banks from foreign banks located in Japan. Even so, a change in the outstanding amount of liabilities taken on through those other instruments is not presumed to be a major factor of the recent upsurge.

⁹ Data collection of “U.S. dollar-denominated claims vis-à-vis non-residents (bank sector – of which related offices)” started in December 2014. As figures for this data series in the period during the global financial crisis are not available, figures for “U.S. dollar-denominated short-term claims vis-à-vis non-residents (bank sector)” were used as substitutes.

¹⁰ In some cases, U.S. dollars funded at headquarters in Japan are used to conduct cross-border transactions directly with foreign residents without going through inter-office accounts.

¹¹ Federal Reserve Board “Assets and Liabilities of U.S. Branches and Agencies of Foreign Banks”

¹² Avdjiev, S., E. Eren and P. McGuire [2020] “Dollar funding costs during the Covid-19 crisis through the lens of the FX swap market,” BIS Bulletin No 1

¹³ The outstanding amount of LCLC (vis-à-vis non-financial corporations) was calculated on an immediate borrower basis, while the outstanding amount of credit commitments was calculated on an ultimate risk basis. Therefore, the difference in definition between those two items should be kept in mind.

¹⁴ Bank for International Settlements [2020] “US dollar funding: an international perspective,” CGFS Papers No 65

¹⁵ International Monetary Fund [2019] “Banks’ Dollar Funding: A Source of Financial Vulnerability,” *Global Financial Stability Report: Lower for Longer*, Chapter 5

¹⁶ As a result, it has become possible to conduct more detailed analysis in the following two respects. First, regarding local claims of foreign affiliates in local currency (LCLC), one of the items analyzed in this article, it was previously possible to capture only the total outstanding amount of claims, but we can now break down the total into five sectors (banks, official sector, non-bank financial institutions, non-financial corporations, and households). Second, whereas it was previously possible to capture cross-border claims and local claims in non-local currencies with respect to only four sectors—banks, official sector, non-bank financial institutions, and non-financial private sector, the non-financial private sector can now be further divided into two sectors (non-financial corporations and households).

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