Daiwa's View

Turning point from liquidity crisis?

Fixed Income

Avoidance of "fallacy of composition"

Fixed Income Research Section FICC Research Dept.

Chief Strategist Eiichiro Tani, CFA (81) 3 5555-8780 eiichiro.tani@daiwa.co.jp



Daiwa Securities Co. Ltd.

Turning point from liquidity crisis?

Avoidance of "fallacy of composition"

Yesterday, four phenomena implied that the "liquidity crisis market" has reached a turning point. One is that the Fed has decided to support liquidity for creditworthiness of households/ companies by reopening a Commercial Paper Funding Facility (CPFF). As concerns about CP procurement lead to behavior to increase cash on hand, the liquidity market worsens. This is a good decision following the BOJ's move to increase the CP purchase amount on 16 March.

Federal Reserve Board announces establishment of a Commercial Paper Funding Facility (CPFF) to support the flow of credit to households and businesses (17 Mar 2020)

The Federal Reserve Board announced today that it will establish a Commercial Paper Funding Facility (CPFF) to support the flow of credit to households and businesses. Commercial paper markets directly finance a wide range of economic activity, supplying credit and funding for auto loans and mortgages as well as liquidity to meet the operational needs of a range of companies. By ensuring the smooth functioning of this market, particularly in times of strain, the Federal Reserve is providing credit that will support families, businesses, and jobs across the economy. The CPFF will provide a liquidity backstop to U.S. issuers of commercial paper through a special purpose vehicle (SPV) that will purchase unsecured and asset-backed commercial paper rated A1/P1 (as of March 17, 2020) directly from eligible companies.

The CPFF program is established by the Federal Reserve under the authority of Section 13(3) of the Federal Reserve Act, with approval of the Treasury Secretary.

The commercial paper market has been under considerable strain in recent days as businesses and households face greater uncertainty in light of the coronavirus outbreak. By eliminating much of the risk that eligible issuers will not be able to repay investors by rolling over their maturing commercial paper obligations, this facility should encourage investors to once again engage in term lending in the commercial paper market. An improved commercial paper market will enhance the ability of businesses to maintain employment and investment as the nation deals with the coronavirus outbreak.

The Treasury will provide \$10 billion of credit protection to the Federal Reserve in connection with the CPFF from the Treasury's Exchange Stabilization Fund (ESF). The Federal Reserve will then provide financing to the SPV under the CPFF. Its loans will be secured by all of the assets of the SPV.

A brief description of the program is attached. More detailed program terms and conditions and an operational calendar will be subsequently published.

The second is that eight major US banks announced that they would access the Fed's discount window. The FOMC formulated measures to supply ample liquidity at an emergency meeting. For example, the Fed substantially lowered the primary credit rate from 1.75% to an attractive level of 0.25% in the discount window (reflecting 100bp cut in FF rate and 50bp spread narrowing). However, private-sector financial institutions tend to avoid utilization of support programs by the government/authorities due to concerns about reputation risk (stigma issue). Therefore, it was uncertain whether they would actually use such programs in the current situation (similar mindset among Japanese banks, which tried to avoid "public fund injection" under financial crisis in 1998). In fact, the US authorities had encouraged accessing this discount window program since the surge in the repo rate from September 2019. However, the program was not utilized at that time.



Once financial institutions are trapped in this mindset, non-utilization of support programs by individual banks worsens the performance of the overall macro economy. This causes "fallacy of composition" via financial erosion at individual banks. In order to avoid this, key is how to lower the psychological hurdle for utilization. As mentioned above, eight major US banks announced that they would access the program, meeting the Fed's message (it encouraged depository institutions "to turn to the discount window"). This erased all the reasons behind hesitation in utilizing this program among all financial institutions. Due to the avoidance of "fallacy of composition," the discount window is now expected to function. We thus can say that the funding issue among US banks has reached a turning point. This is likely to support liquidity at US households/companies, combined with the first CPFF.

◆ Federal Reserve Actions to Support the Flow of Credit to Households and Businesses (15 Mar 2020)

The Federal Reserve encourages depository institutions to turn to the discount window to help meet demands for credit from households and businesses at this time. In support of this goal, the Board today announced that it will lower the primary credit rate by 150 basis points to 0.25 percent, effective March 16, 2020.

The third is the announcement of bond issuance by several companies. Thus far, the primary market has been suspended, but some names, such as Verizon Communications and PepsiCo, decided to issue bonds. Although the average concession for new bonds appears to have been high at around 45bp, we positively view the resumption of funding.

Fourth is US dollar fund-supplying operations by the BOJ, where financial institutions placed bids and successful bids amounted to \$32.325bn (about Y3.4tn). This was conducted in line with the BOJ's decision to supply ample funds at an emergency meeting on 16 March. In addition, this operation included the first three-month operation, reflecting the decision.

Chart: US Dollar Funds-Supplying Operations by BOJ (17 Mar)

Period	Loan rate	Amount of successful bids (\$bn)
2 weeks	0.37%	2.053
3 months	0.41%	30.272

Source: Bloomberg; compiled by Daiwa Securities.

The loan rate in the BOJ's operations reflected the conditions agreed on the provision of US dollar liquidity among six major central banks (incl. Fed). It was very attractive at 0.37% for three-month ops and at 0.41% for one-week ops. There were no reasons to avoid using this scheme, but financial intuitions had tended to refrain from using it for fear of a bad reputation on the "lack of dollar-funding capacity," resulting in no bids or a limited amount. However, this time, private-sector financial institutions met the BOJ's intention to supply "ample funds," and a sufficient amount was accepted via usage of the scheme. The avoidance of "fallacy of composition" has also been confirmed here. Thanks to support by major central banks in Japan, the US, UK, Europe, Switzerland, and Canada, the dollar-funding issue was resolved at related financial institutions. Due to this, the liquidity issue has reached a turning point.

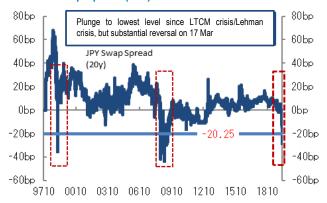
Once position adjustments end on the selling side, this liquidity crisis is likely to normalize. I recognize that yesterday was a turning point.

Chart: USD/JPY Currency Basis



Source: Bloomberg; compiled by Daiwa Securities.

Chart: Yen Swap Spread (20Y)



Source: Bloomberg; compiled by Daiwa Securities.

Of course, the liquidity issue is not the only problem surrounding the current market amid the COVID-19 outbreak. However, the depletion of liquidity is probably the cause of the critical confusion of the current market. Securing of the liquidity is the premise for market normalization. Once we confirm improvement in this respect, we can shift focus to the government's economic measures. Yesterday, the media reported that US President Donald Trump was considering an economic package worth around Y129tn. This is the background of the rise in long-term interest rates. Also in Japan, Prime Minister Shinzo Abe announced the intention to formulate "drastic and powerful economic policy," aiming for a V-shaped recovery. Valuation on the size of expenditures depends on the timing of the end of the COVID-19 outbreak, in addition to the content of the expenditures. We wait expeditious deliberations on the budget at the Diet with a focus on national benefits.



Explanatory Document of Unregistered Credit Ratings

In order to ensure the fairness and transparency in the markets, Credit Rating Agencies became subject to the Credit Rating Agencies' registration system based on the Financial Instruments and Exchange Act. In accordance with this Act, in soliciting customers, Financial Instruments Business Operators, etc. shall not use the credit ratings provided by unregistered Credit Rating Agencies without informing customers of the fact that those Credit Rating Agencies are not registered, and shall also inform customers of the significance and limitations of credit ratings, etc.

■ The Significance of Registration

Registered Credit Rating Agencies are subject to the following regulations:

- 1) Duty of good faith.
- 2) Establishment of control systems (fairness of the rating process, and prevention of conflicts of interest, etc.).
- 3) Prohibition of the ratings in cases where Credit Rating Agencies have a close relationship with the issuers of the financial instruments to be rated, etc.
- 4) Duty to disclose information (preparation and publication of rating policies, etc. and public disclosure of explanatory documents).

In addition to the above, Registered Credit Rating Agencies are subject to the supervision of the Financial Services Agency ("FSA"), and as such may be ordered to produce reports, be subject to on-site inspection, and be ordered to improve business operations, whereas unregistered Credit Rating Agencies are free from such regulations and supervision.

■ Credit Rating Agencies

[Standard & Poor's]

The Name of the Credit Rating Agencies group, etc

The name of the Credit Rating Agencies group: S&P Global Ratings ("Standard & Poor's")

The name and registration number of the Registered Credit Rating Agency in the group: S&P Global Ratings Japan Inc. (FSA commissioner (Rating) No.5)

How to acquire information related to an outline of the rating policies and methods adopted by the person who determines Credit Ratings

The information is posted under "Unregistered Rating Information" (http://www.standardandpoors.co.jp/unregistered) in the "Library and Regulations" section on the website of S&P Global Ratings Japan Inc. (http://www.standardandpoors.co.jp)

Assumptions, Significance and Limitations of Credit Ratings

Credit ratings assigned by Standard & Poor's are statements of opinion on the future credit quality of specific issuers or issues as of the date they are expressed and they are not indexes which show the probability of the occurrence of the failure to pay by the issuer or a specific debt and do not guarantee creditworthiness. Credit ratings are not a recommendation to purchase, sell or hold any securities, or a statement of market liquidity or prices in the secondary market of any issues.

Credit ratings may change depending on various factors, including issuers' performance, changes in external environment, performance of underlying assets, creditworthiness of counterparties and others. Standard & Poor's conducts rating analysis based on information it believes to be provided by the reliable source and assigns credit ratings only when it believes there is enough information in terms of quality and quantity to make a conclusion. However, Standard & Poor's does not perform an audit, due diligence or independent verification of any information it receives from the issuer or a third party, or guarantee its accuracy, completeness or timeliness of the results by using the information. Moreover, it needs to be noted that it may incur a potential risk due to the limitation of the historical data that are available for use depending on the rating.

This information is based on information Daiwa Securities Co. Ltd. has received from sources it believes to be reliable as of March 7th, 2017, but it does not guarantee accuracy or completeness of this information. For details, please refer to the website of S&P Global Ratings Japan Inc. (http://www.standardandpoors.co.jp)

The Name of the Credit Rating Agencies Group, etc
The name of the Credit Rating Agencies group: Moody's Investors Service ("MIS")
The name and registration number of the Registered Credit Rating Agency in the group: Moody's Japan K.K. (FSA commissioner (Rating) No.2)

How to acquire information related to an outline of the rating policies and methods adopted by the person who determines Credit Ratings

The information is posted under "Unregistered Rating explanation" in the section on "The use of Ratings of Unregistered Agencies" on the website of Moody's Japan K.K. (The website can be viewed after clicking on "Credit Rating Business" on the Japanese version of Moody's website (https://www.moodys.com/pages/default_ja.aspx)

Assumptions, Significance and Limitations of Credit Ratings

Credit ratings are Moody's Investors Service's ("MIS") current opinions of the relative future credit risk of entities, credit commitments, or debt or debt-like securities. MIS defines credit risk as the risk that an entity may not meet its contractual, financial obligations as they come due and any estimated financial loss in the event of default. Credit ratings do not address any other risk, including but not limited to: liquidity risk, market value risk, or price volatility. Credit ratings do not constitute investment or financial advice, and credit ratings are not recommendations to purchase, sell, or hold particular securities. No warranty, express or implied, as to the accuracy, timeliness, completeness, merchantability or fitness for any particular purpose of any such rating or other opinion or information, is given or made by MIS in

Based on the information received from issuers or from public sources, the credit risks of the issuers or obligations are assessed. MIS adopts all necessary measures so that the information it uses in assigning a credit rating is of sufficient quality and from sources MIS considers to be reliable. However, MIS is not an auditor and cannot in every instance independently verify or validate information received in the rating process.

This information is based on information Daiwa Securities Co. Ltd. has received from sources it believes to be reliable as of April 16th, 2018, but it does not guarantee accuracy or completeness of this information. For details, please refer to the website of Moody's Japan K.K. (https://www.moodys.com/pages/default_ja.aspx)

[Fitch]

The Name of the Credit Rating Agencies group, etc

The name of the Credit Rating Agencies group: Fitch Ratings ("Fitch")
The name and registration number of the Registered Credit Rating Agency in the group: Fitch Ratings Japan Limited (FSA commissioner (Rating) No.7)

How to acquire information related to an outline of the rating policies and methods adopted by the person who determines Credit Ratings

The information is posted under "Outline of Rating Policies" in the section of "Regulatory Affairs" on the website of Fitch Ratings Japan Limited (https://www.fitchratings.com/site/japan)

Assumptions, Significance and Limitations of Credit Ratings

Ratings assigned by Fitch are opinions based on established criteria and methodologies. Ratings are not facts, and therefore cannot be described as being "accurate" or "inaccurate" Credit ratings do not directly address any risk other than credit risk. Credit ratings do not comment on the adequacy of market price or market liquidity for rated instruments. Ratings are relative measures of risk; as a result, the assignment of ratings in the same category to entities and obligations may not fully reflect small differences in the degrees of risk. Credit ratings, as opinions on relative ranking of vulnerability to default, do not imply or convey a specific statistical probability of

In issuing and maintaining its ratings, Fitch relies on factual information it receives from issuers and underwriters and from other sources Fitch believes to be credible. Fitch conducts a reasonable investigation of the factual information relied upon by it in accordance with its ratings methodology, and obtains reasonable verification of that information from independent sources, to the extent such sources are available for a given security or in a given jurisdiction. The assignment of a rating to any issuer or any security should not be viewed as a guarantee of the accuracy, completeness, or timeliness of the information relied on in connection with the rating or the results obtained from the use of such information. If any such information should turn out to contain misrepresentations or to be otherwise misleading, the rating associated with that information may not be appropriate. Despite any verification of current facts, ratings can be affected by future events or conditions that were not anticipated at the time a rating was issued or affirmed.

For the details of assumption, purpose and restriction of credit ratings, please refer to "Definitions of ratings and other forms of opinion" on the website of Fitch Rating

This information is based on information Daiwa Securities Co. Ltd. has received from sources it believes to be reliable as of September 27th, 2019, but it does not guarantee accuracy or completeness of this information. For details, please refer to the website of Fitch Rating Japan Limited (https://www.fitchratings.com/site/japan)



IMPORTANT

This report is provided as a reference for making investment decisions and is not intended to be a solicitation for investment. Investment decisions should be made at your own discretion and risk. Content herein is based on information available at the time the report was prepared and may be amended or otherwise changed in the future without notice. We make no representations as to the accuracy or completeness. Daiwa Securities Co. Ltd. retains all rights related to the content of this report, which may not be redistributed or otherwise transmitted without prior consent.

Conflicts of Interest: Daiwa Securities Co. Ltd. may currently provide or may intend to provide investment banking services or other services to the company referred to in this report. In such cases, said services could give rise to conflicts of interest for Daiwa Securities Co. Ltd.

Daiwa Securities Co. Ltd. and Daiwa Securities Group Inc.: Daiwa Securities Co. Ltd. is a subsidiary of Daiwa Securities Group Inc.

Other Disclosures Concerning Individual Issues:

1) As of 26 April 2016, Daiwa Securities Co. Ltd., its parent company Daiwa Securities Group Inc., GMO Financial Holdings, Inc., and its subsidiary GMO CLICK Securities, Inc. concluded a basic agreement for the establishment of a business alliance between the four companies.

As of end-December 2017, Daiwa Securities Group Inc. owned shares in GMO Financial Holdings, Inc. equivalent to approximately 9.3% of the latter's outstanding shares. Given future developments in and benefits from the prospective business alliance, Daiwa Securities Group Inc. could boost its stake in GMO Financial Holdings, Inc. to up to 20% of outstanding shares.

- 2) Daiwa Real Estate Asset Management is a subsidiary of Daiwa Securities Group Inc. and serves as the asset management company for the following J-REITS: Daiwa Office Investment Corporation (8976), Nippon Healthcare Investment Corporation (3308), Japan Rental Housing Investments (8986).
- 3) Samty Residential Investment became a consolidated subsidiary of Daiwa Securities Group Inc. effective 10 September 2019.
- 4) On 30 May 2019, Daiwa Securities Group Inc. formalized an equity/business alliance with Samty, and as of 14 June 2019 it owned 16.95% of shares outstanding in Samty along with convertible bonds with a par value of Y10bn. Conversion of all of said convertible bonds into common shares would bring the stake of Daiwa Securities Group Inc. in Samty to 27.28%.
- 5) Daiwa Securities Group Inc. and Credit Saison Co., Ltd. entered into a capital and business alliance, effective 5 September 2019. In line with this alliance, Daiwa Securities Group Inc. is to acquire up to 5.01% of Credit Saison's total common shares outstanding (excl. treasury shares; as of 31 Jul 2019).

6) NEC (6701): NOTICE REGARDING U.S. PERSONS: This report is not intended for distribution to or use by any person in the United States. Securities issued by NEC Corporation have been suspended from registration in the U.S. and are subject to an order of the U.S. Securities and Exchange Commission dated June 17, 2008, pursuant to Section 12(j) of the Securities Exchange Act of 1934. This document is not a recommendation or inducement of any purchase or sale of such securities by any person or entity located in the U.S. Daiwa Securities Co. Ltd. disclaims any responsibility to any such person with respect to the content of this document. Any U.S. person receiving a copy of this report should disregard it.

Notification items pursuant to Article 37 of the Financial Instruments and Exchange Law

(This Notification is only applicable to where report is distributed by Daiwa Securities Co. Ltd.)

If you decide to enter into a business arrangement with our company based on the information described in this report, we ask you to pay close attention to the following items.

- In addition to the purchase price of a financial instrument, our company will collect a trading commission* for each transaction as agreed beforehand with you. Since commissions may be included in the purchase price or may not be charged for certain transactions, we recommend that you confirm the commission for each transaction. In some cases, our company also may charge a maximum of ¥2 million per year as a standing proxy fee for our deposit of your securities, if you are a non-resident.
- For derivative and margin transactions etc., our company may require collateral or margin requirements in accordance with an agreement made beforehand with you. Ordinarily in such cases, the amount of the transaction will be in excess of the required collateral or margin requirements**.
- There is a risk that you will incur losses on your transactions due to changes in the market price of financial instruments based on fluctuations in interest rates, exchange rates, stock prices, real estate prices, commodity prices, and others. In addition, depending on the content of the transaction, the loss could exceed the amount of the collateral or margin requirements.
- There may be a difference between bid price etc. and ask price etc. of OTC derivatives handled by our company.
- Before engaging in any trading, please thoroughly confirm accounting and tax treatments regarding your trading in financial instruments with such experts as certified public accountants.
- * The amount of the trading commission cannot be stated here in advance because it will be determined between our company and you based on current market conditions and the content of each transaction etc.
- ** The ratio of margin requirements etc. to the amount of the transaction cannot be stated here in advance because it will be determined between our company and you based on current market conditions and the content of each transaction etc.

When making an actual transaction, please be sure to carefully read the materials presented to you prior to the execution of agreement, and to take responsibility for your own decisions regarding the signing of the agreement with our company.

Corporate Name: Daiwa Securities Co. Ltd.

Registered: Financial Instruments Business Operator, Chief of Kanto Local Finance Bureau (Kin-sho) No.108

Memberships: Japan Securities Dealers Association, The Financial Futures Association of Japan, Japan Investment Advisers Association, Type II Financial Instruments Firms Association