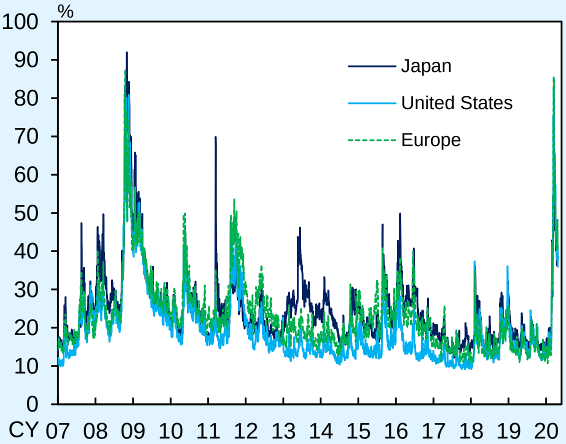
(Box 3) Financial Conditions at Home and Abroad since the Outbreak of COVID-19

Amid the COVID-19 pandemic, financial markets at home and abroad have been highly volatile. There has been a negative impact on corporate financing worldwide, mainly reflecting a decline in sales due to constraints on economic activity. This box examines developments in financial conditions at home and abroad since the outbreak of COVID-19, and provides an overview of the responses by the Bank of Japan and other central banks under these circumstances.

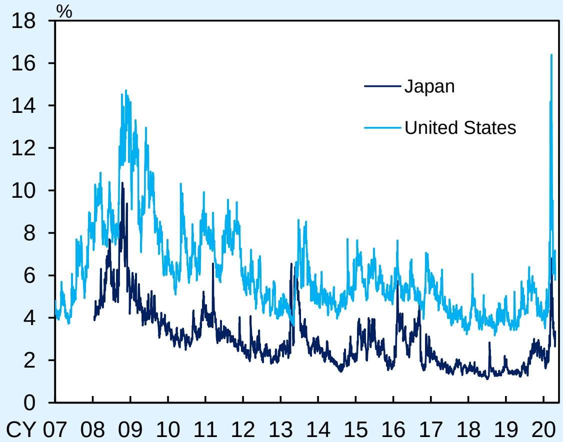
Chart B3-1: Stock and Bond Market Volatility

1. Stock Prices



Source: Bloomberg.
Note: Figures for Japan, the United States, and Europe are based on the Nikkei Stock Average Volatility Index, the VIX index, and the VSTOXX index, respectively.

2. Options on Government Bond Futures



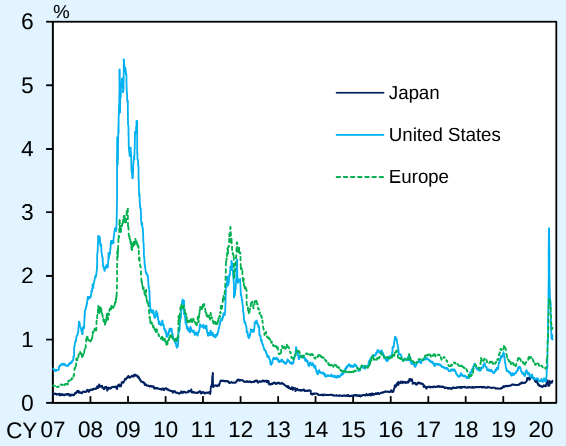
Source: Bloomberg.
Note: Figures for Japan are based on the S&P/JPX JGB VIX index, and those for the United States are based on the TYVIX index.

Developments in global financial markets have been highly volatile since late February, when COVID-19 began to spread in the United States and Europe. Stock prices and long-term interest rates declined due to a rise in investors' risk aversion. In addition, even selling pressure on government bonds, which are considered to be safe assets -- in other words, upward pressure on long-term interest rates -- intensified temporarily, reflecting an increase in demand for U.S. dollars, as described below. Moreover, liquidity such as in the bond market decreased, due partly to changes in the environment to conduct transactions, as financial institutions reorganized their business operations, such as by splitting operations across alternative business bases and enabling employees to work from home based on business continuity planning (BCP). The primary characteristic of the current phase is that, under these circumstances, a deterioration in market functioning has been observed widely, as seen, for example, in the volatility indices for the stock and bond markets rising to a level not seen since the global financial crisis (Chart B3-1). Furthermore, mainly reflecting an increase in demand for U.S. dollar due to the spread of COVID-19, supply-demand conditions in U.S. dollar funding markets tightened, and the dollar appreciated temporarily in the foreign exchange market (Charts 54, 55, and 58). Credit markets also have been volatile, as reflected in the widening spreads on corporate bonds and CP, particularly in the U.S. and the European markets, thereby having a negative impact on corporate financing (Chart B3-2).

Meanwhile, looking at Japan's financial conditions, firms' financial positions have deteriorated, mainly due to the decline in sales reflecting the impact of the spread of COVID-19 (Chart 50). Particularly, such positions, mainly of relatively small-sized firms, have worsened in the services industry -- such as accommodations as well as eating and drinking services -- and in retailing, both of which are facing a sharp decrease in sales (Chart B3-3). However, at present, financial institutions' lending attitudes have remained accommodative from a long-term perspective and the funding conditions of firms through domestic financial markets have been stable on the whole. Attention needs to be paid to whether the deterioration in the real economy will affect financial system stability; in other words, whether the smooth functioning of financial intermediation will be ensured with financial system stability being maintained (Charts 48, 49, and 51).

In response to the volatility in financial markets and the impact on corporate financing, the Bank has implemented various measures actively toward maintaining stability in financial markets and ensuring smooth financing, such as of firms.

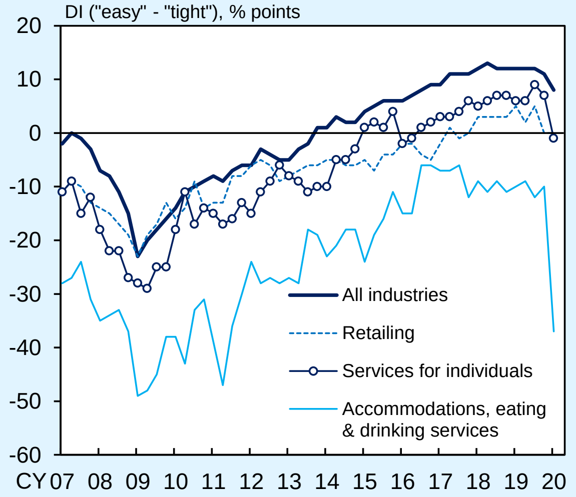
Chart B3-2: Yield Spreads between Corporate Bonds and Government Bonds



Sources: Bloomberg; QUICK.
Note: Figures for corporate bond yields for Japan are based on the trading reference statistics of the JSDA. For Japan, corporate bonds with a residual maturity of 3 or more but less than 7 years rated AA by R&I are used. Figures for corporate bond yields for the United States and Europe are calculated by the ICE Data Indices. For these economies, corporate bonds with a residual maturity of 3 or more but less than 5 years rated AA by Moody's, S&P, and Fitch are used.

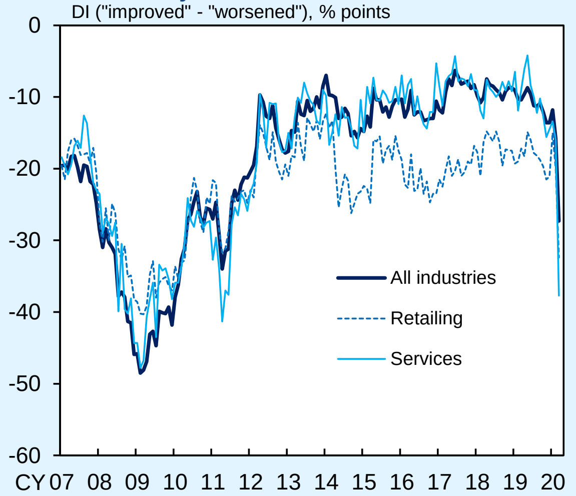
Chart B3-3: Financial Position of Small Enterprises

1. *Tankan*



Source: Bank of Japan.
Note: Based on the *Tankan*.

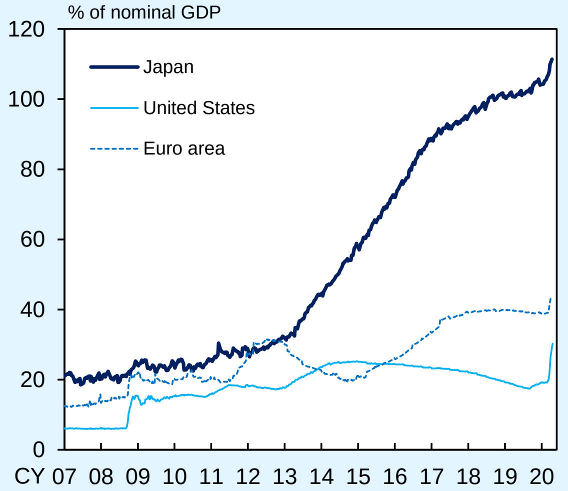
2. LOBO Survey



Source: Japan Chamber of Commerce and Industry.
Note: Based on the LOBO survey. The sample of the survey includes sole proprietorships.

Moreover, how to deal with the volatility in financial markets and the impact on corporate financing have become shared global issues, and the U.S. and European central banks also have implemented measures, although the specific responses vary in line with differences in the structure and situation of loan and bond markets in each economy. In addition, the six central banks have coordinated with each other to make the utmost efforts to provide U.S. dollar liquidity. In such situation, the balance sheets of central banks have expanded enormously (Chart B3-4).

Chart B3-4: Central Bank Assets



Source: Haver.
Note: Figures from January 2020 onward are calculated using nominal GDP for 2019/Q4.

While financial markets have remained nervous, tension has been abating somewhat due to these aggressive responses taken by the central bank of each country and region (Chart B3-5). These responses, coupled with various measures taken by the respective governments, are expected to contribute to supporting economic and financial activities.

Chart B3-5: Monetary Policy Measures Taken by Central Banks

Japan	-- Provision of further ample funds such as through active purchases of JGBs -- Ensuring of smooth financing, such as of firms, through the introduction/strengthening of special funds-supplying operations and increased purchases such as of CP and corporate bonds -- Active purchases of ETFs and J-REITs to maintain stability in financial markets
United States	-- Lowering of the target range for the federal funds rate (twice) -- Purchases of the necessary amount of Treasury securities and agency mortgage-backed securities for smooth market functioning and effective transmission of monetary policy -- Establishment and enhancement of facilities such as for purchasing CP and corporate bonds and for supporting lending to firms
Euro Area	-- Enhancement of longer-term refinancing operations to support lending to firms and provide liquidity to the financial system -- Expansion of asset purchase programs such as for CP and corporate bonds -- Launch of the Pandemic Emergency Purchase Programme of private and public sector securities to counter risks to the monetary policy transmission mechanism and the outlook for the euro area

Six Central Banks (Canada, United Kingdom, Japan, Euro Area, United States, and Switzerland)

-- Enhancement of the provision of U.S. dollar liquidity via the standing dollar liquidity swap line arrangements (by lowering the pricing on the standing arrangements, offering dollars with longer maturities, and increasing the frequency of the provision)