

# Daiwa's View

## Volatility clustering

- Volatility to remain high for now

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Daiwa Securities Co. Ltd.

### Volatility to remain high for now

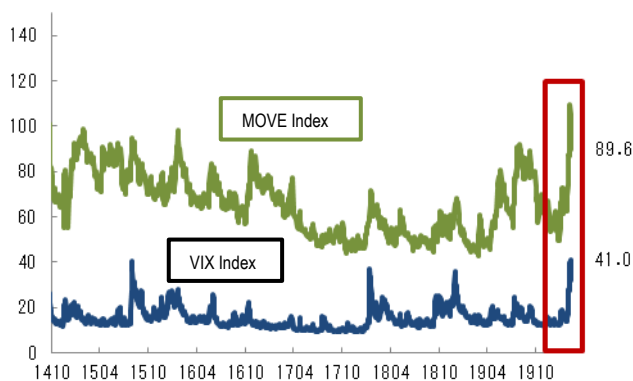
#### Volatility clustering

In the quantitative time-series analysis, the ARCH model is often used because it can model the phenomenon called “volatility clustering.” In the case of shocks in the market, changes remain large for a while. Adversely, once such changes recede, small changes tend to continue for a while.

Market developments over the past several days prove the existence of “volatility clustering.” The DJIA has repeated ups-and-downs with a nearly \$1,000 change for consecutive days. US yields also remain bumpy, posting a change of nearly 10bp. Given the rise of the VIX Index and MOVE Index, we should brace for the outlook that the market will not calm down in the near term (Chart 1). In the long term, the impact of shocks is expected to diminish as time passes. However, the return to normality is likely to be much slower than people assume.

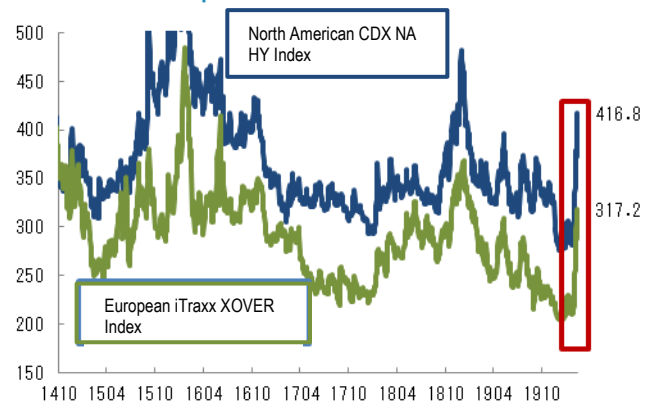
Amid the continuing spread of COVID-19, US/European markets worsened again yesterday, as witnessed by the widening of the European Crossover Index to 317bp and the North American High Yield CDS Index to 416bp (Chart 2). The bankruptcy of British airline Flybe appears to have strengthened the bleak outlook. As the US and Europe are on the verge of a credit crisis, the probability is increasing that new ECB president Christine Lagarde will include/expand credit support measures, such as TLTRO and CSPP, in additional easing measures at the Governing Council meeting on 12 March.

Chart 1: Volatility Indices



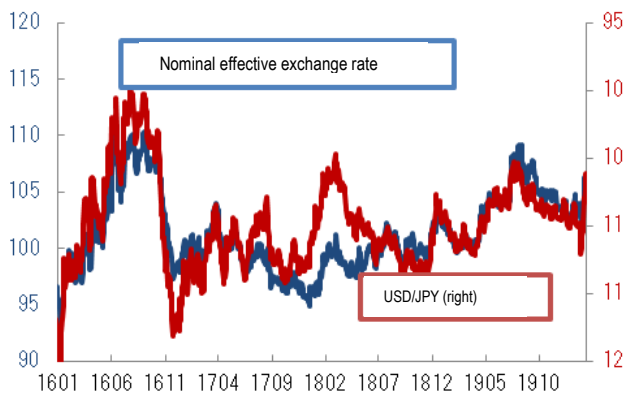
Source: Bloomberg; compiled by Daiwa Securities.

Chart 2: US and European HY CDS Indices



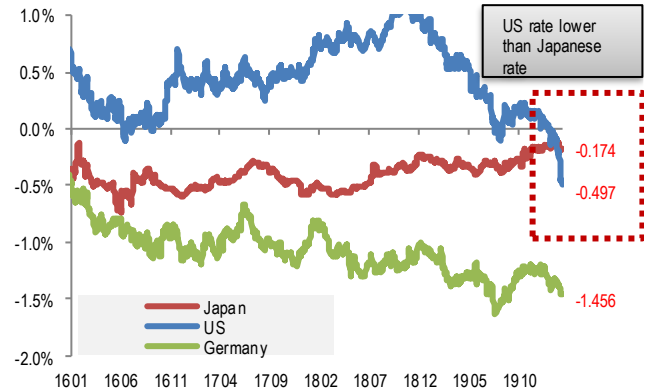
Source: Bloomberg; compiled by Daiwa Securities.

Chart 3: USD/JPY and Nominal Effective Exchange Rate



Source: Bloomberg; compiled by Daiwa Securities.

Chart 4: 10Y Real Interest Rate in Japan, US, Europe



Source: Bloomberg; compiled by Daiwa Securities.

Amid the 10-year US yield falling to a record-low 0.92%, the USD/JPY momentarily fell to the Y105 level last night. Looking at the 10-year real interest rate in Japan, US, and Europe, the Japanese rate remains flat at around  $-0.17\%$ , while the US rate has plunged to  $-0.5\%$ . The US real interest rate is now lower than the Japanese rate, widening the difference. This difference “in the scope for yield declines” can be seen as one background factor of the appreciation tendency of the yen against the dollar.

However, what is currently observed is depreciation of the dollar. The nominal effective exchange rate, which is more essentially important in examining the possibility of additional easing by the BOJ, is still Y105.7. In September 2019, the BOJ deferred deepening negative interest rates, despite yen appreciation to around Y109.2 in the nominal effective exchange rate. Therefore, the current situation does not allow us to say that the BOJ will take action. That said, it is true that the buffer is gradually narrowing. If (1) the ECB decides to deepen negative interest rates at the Governing Council meeting on 12 March and (2) the yen strengthens further to a level far beyond Y110 in the nominal effective exchange rate, these factors would have an impact on the BOJ's judgement.

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### ■ Credit Rating Agencies

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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 ¥10bn. 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).

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- 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.

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

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