Daiwa's View

Comprehensive assessment of unprecedented easing and USD/JPY rate

- Yield suppression pushed down the yen against the dollar by around Y10 on average

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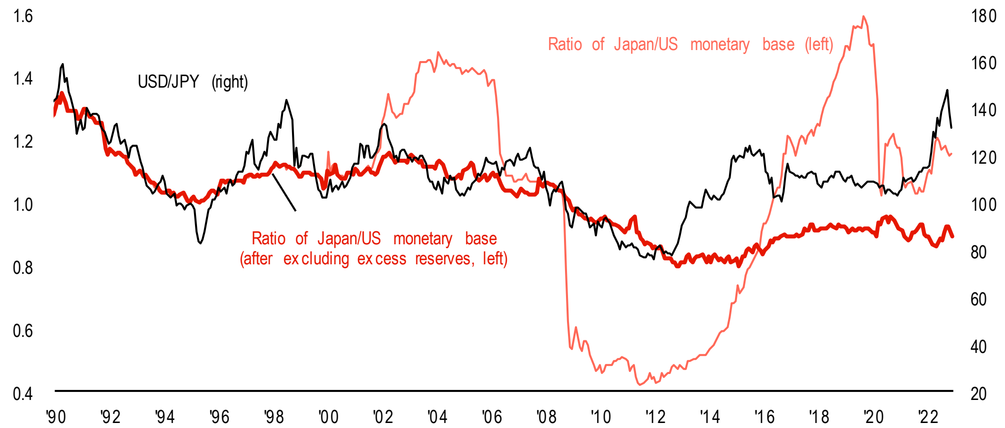
BOJ Governor Haruhiko Kuroda's term will end in April. Mr. Kuroda, whose ten-year (two-term) time in office has been the longest of any BOJ governor, made a stunning debut when he assumed office. He made a spectacular start with "Quantitative and Qualitative Monetary Easing (QQE)," dubbed "unprecedented easing," in which the number two was key, with the BOJ aiming to double the monetary base and raise the CPI growth rate to 2% within a time frame of about two years.

However, the BOJ failed to achieve these targets in a short period of time. As the framework of QQE was changed to "Quantitative and Qualitative Monetary Easing with a Negative Interest Rate" and "Quantitative and Qualitative Monetary Easing with Yield Curve Control," the central bank was forced to continue easing over the long period of a decade. Over the past six months, the atmosphere in the world has changed dramatically. While revisions to unprecedented easing have already started, people anticipate further revisions with the new BOJ Governor. In this report, we examine the impact of unprecedented easing on the USD/JPY rate.

QQE is a typical type of unconventional monetary policy. There are various ways to engage in unconventional monetary policy. One typical approach is quantitative easing, in which the scale of the central bank's balance sheet is expanded. The theoretical mechanism regarding quantitative easing's impact on forex rates is not necessarily clear. Empirically, it is undeniable that depreciation of the local currency may be caused by the increase in the quantity of funds in the market that are supplied by the central bank.

Chart 1: USD/JPY Rate, Ratio of Japan/US Monetary Base



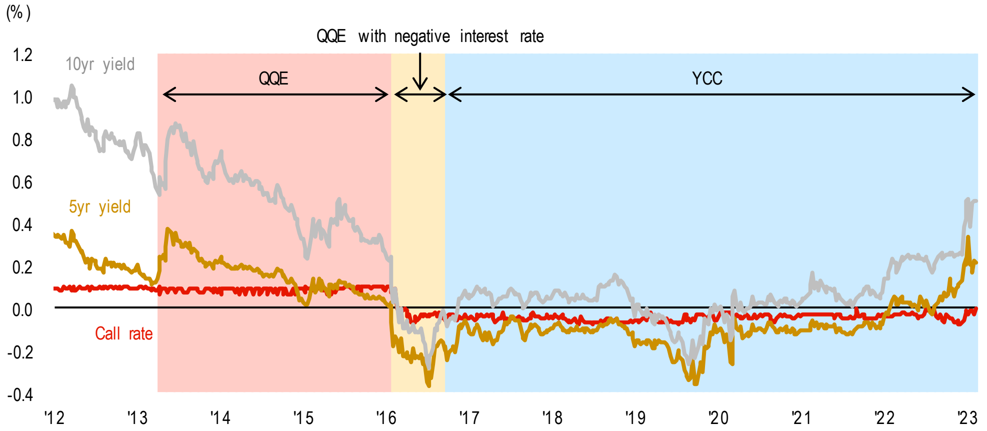
Source: Fed, BOJ; compiled by Daiwa Securities.

The "Soros chart," which is thought to have been devised by the famous investor George Soros, is well-known for pertaining to the relationship between forex rates and a central banks' balance sheet. This chart shows the ratio of the monetary base in two nations graphically. A long-term "Soros chart" for Japan and the US confirms that there was a moderate correlation with the USD/JPY rate (Chart 1 on previous page).

However, the ratio of the monetary base and the forex rate sometimes diverged significantly. In addition, a "Soros chart excluding excess reserves," the so-called "adjusted Soros chart," appears to be showing a strong correlation between both figures. Eventually, it seems appropriate to basically think that a change in "interest rates" via purchases of long-term government bonds has an impact on forex rates, instead of thinking that the balance sheet's "quantity" itself has a direct impact on forex rates.

Confirming trends in JGB yields, we found that yields had continued to decline substantially, mainly in the 10-year sector, since the introduction of QQE in April 2013 (Chart 2). Due to the introduction of QQE with a Negative Interest Rate in January 2016, intermediate/long-term yields further declined to around -0.4%. However, long-term and superlong yields fell too much due to the introduction of negative rates. The BOJ then introduced YCC in September 2016 in order to reduce JGB purchases, among other reasons. Thanks to the YCC, the long-term yield remained at around 0%, and yields in other maturities also remained low and stable. However, since 2021, JGB yields have risen due to gradual expansion of the YCC trading band amid a rise in overseas yields. They are now approaching pre-QQE levels.

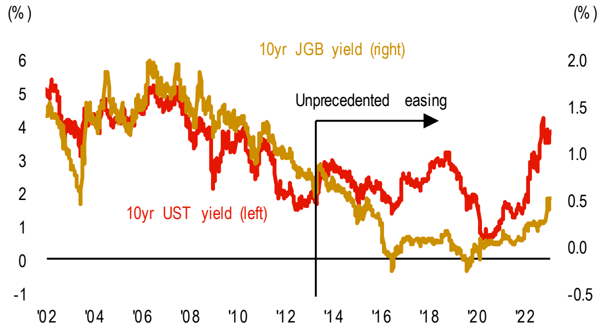
Chart 2: Monetary Policy and JGB Yields Since BOJ Governor Kuroda Took Office



Source: BOJ, Bloomberg; compiled by Daiwa Securities.

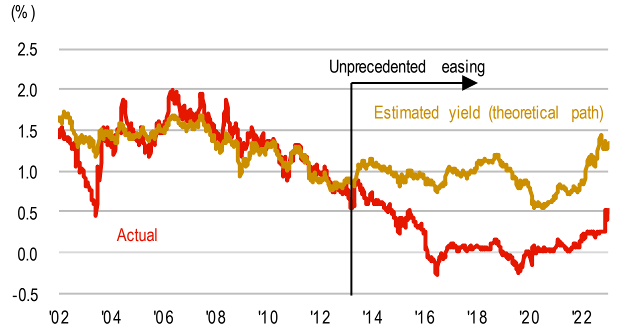
Looking at JGB yields from the perspective of the global yield market, we can confirm a very strong correlation between the JGB and US yields, although JGB yields were not completely correlated with overseas yields (such as US yields) before April 2013 (Chart 3 on next page). Since the introduction of unprecedented easing, however, the correlation has weakened substantially. We found that JGB yields have started to move independently, decoupled from global trends. JGB yields had become more independent since January 2016, when QQE with a Negative Interest Rate was introduced, and the extent of that independence has become pronounced since September 2016, when the YCC was introduced.

Chart 3: 10yr JGB and UST Yields



Source: Bloomberg; compiled by Daiwa Securities.

Chart 4: Hypothetical 10-year JGB Yield Without Unprecedented Easing



Source: Bloomberg; compiled by Daiwa Securities.
Note: Estimation period from Jan 2002 to Mar 2013.

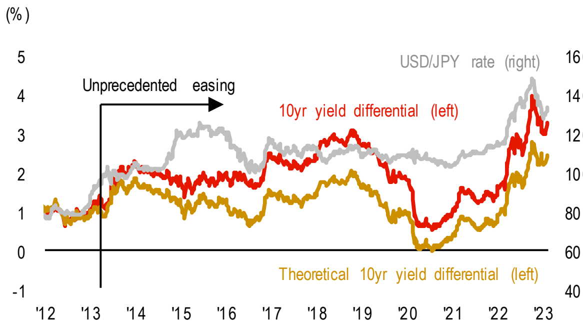
Implementing a simple regression analysis here, using the long-term US Treasury yield as the only explanatory variable, we estimate that a hypothetical 10-year JGB yield without unprecedented easing would be moving at around 1% (Chart 4). However, the actual value has remained at around 0% for a long time, suggesting that the difference is the effect of lowering yields due to unprecedented easing.

With the long-term yield artificially suppressed to a low level due to unprecedented easing, the Japan/US yield differential widened compared to what it would have been without unprecedented easing (Chart 5). As this continued to put depreciation pressure on the yen in the forex market, we estimate that the USD/JPY rate was pushed up by around Y10 on average, towards yen deprecation.

When unprecedented easing and Abenomics (which produced unprecedented easing) started, the relationship between the actual USD/JPY rate and purchasing power parity changed substantially (Chart 6). As mentioned in our 27 December 2022 report (*Things to watch for in 2023 (5): Convergence on purchasing power parity?)*, the structural changes in Japan's foreign-facing sectors were a factor. However, yield suppression due to unprecedented easing probably had a major impact on the yen market, towards yen depreciation.

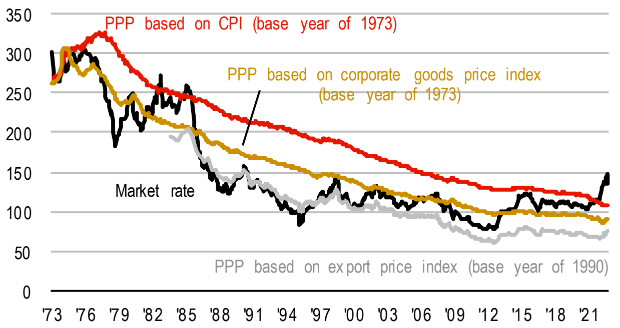
For reference, the USD/JPY rate over the past ten years had mostly moved in line with the Japan/US yield differential. However, there were also times when the correlation collapsed. For two years after the autumn of 2014 and for two years following the outset of the COVID-19 pandemic, the USD/JPY rate diverged significantly from the levels suggested by the yield differential.

Chart 5: USD/JPY Rate, Japan/US 10yr Yield Differential



Source: BOJ, Bloomberg; compiled by Daiwa Securities.

Chart 6: USD/JPY Purchasing Power Parity, Market Rate



Source: Ministry of Internal Affairs and Communications, BOJ, US Department of Labor, Fed; compiled by Daiwa Securities.
Note: For the export price index-based PPP, because the data underlying the current US export price index do not remain comparable going back to 1973, we use a base year of 1990, when there was a relatively small deviation between PPP and actual rates as calculated using historical data going back to 1973.

In the forex market, the yen weakened amid unprecedented easing. However, more precisely, the yen started to weaken when the lower house was dissolved in November 2012. At the time of the lower house election at end-2012, then Prime Minister Shinzo Abe (then LDP president) made a strong request that the BOJ put an end to deflation and make a correction to the strong yen. The government and the BOJ made the market aware of their cooperative stance via the announcement of a joint statement in January 2013, and the forex market reacted to this 'regime change,' which led to yen depreciation.

In April 2013, BOJ Governor Kuroda embarked on QQE, without betraying market expectations. The scale of QQE was greater than expected. The decision to do this was called "Kuroda bazooka." While JGB yields moved at relatively low levels, the Japan/US yield differential widened, catching up with the USD/JPY rate that was already on an uptrend. After that, additional monetary easing called "Halloween easing" or "Kuroda Bazooka 2" was implemented at end-October 2014, which led to further depreciation of the yen against the dollar.

As far as we can tell from reactions at that time, the forex market appears to have reacted to "Kuroda Bazooka 2" by moving towards yen depreciation due to expectations of 'regime change' and the successful experience of Kuroda Bazooka. However, the reaction to yen depreciation in the Japanese market at that time was largely critical, unlike the yen deprecation after the lower house dissolution, which was welcomed by all of society. When the yen weakened to around Y125 towards June 2015, Governor Kuroda made a statement to curb yen depreciation, saying that an ordinary assessment of the situation indicated that the yen would be unlikely to weaken further. Since the beginning of 2016, the yen shifted towards yen appreciation, to the level before Halloween easing. The US/Japan yield differential moved little, with only the forex rate returning to the level from which it had started.

Following the outset of the COVID-19 pandemic, the resumption of economic activity in Japan lagged substantially behind that in the US, which appears to have had an impact on forex rate levels. The US resumed economic activity, steering towards living with COVID-19 ahead of other nations. In contrast, Japan continued to impose restrictions on daily activities. This resulted in a large difference in economic trends. Real GDP in the US exceeded pre-pandemic levels in Apr-Jun 2021, but real GDP in Japan eventually recovered to pre-pandemic levels one year later than the US. As such, the strength/weakness of the currencies appears to have reflected this gap in economic growth.

We have started to see unprecedented easing (which has been promoted by the BOJ under the leadership of Governor Kuroda) be revised towards 'ordinary' easing. That said, given remarks by Kazuo Ueda, the nominee for BOJ governor, we anticipate that monetary easing will continue, although the policy's side effects are likely to abate. We would not be at all surprised if the BOJ were to decide to remove YCC as early as the March meeting. However, its removal alone would not return the situation completely to what it was before unprecedented easing. Removing zero interest rates will be difficult, so a reasonable period of time may be needed before we reach the point where negative interest rates can be eliminated. From a global perspective, 'ordinary' easing in Japan is not ordinary but considerably large monetary easing. Therefore, downward pressure on the yen market is likely to persist.

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