Daiwa's View

Labor productivity and yen exchange rate

- Sluggish labor productivity growth in Japan contributing to lower real effective yen exchange rate
- USD/JPY actual exchange rate above purchasing power parity due to lower real effective yen exchange rate

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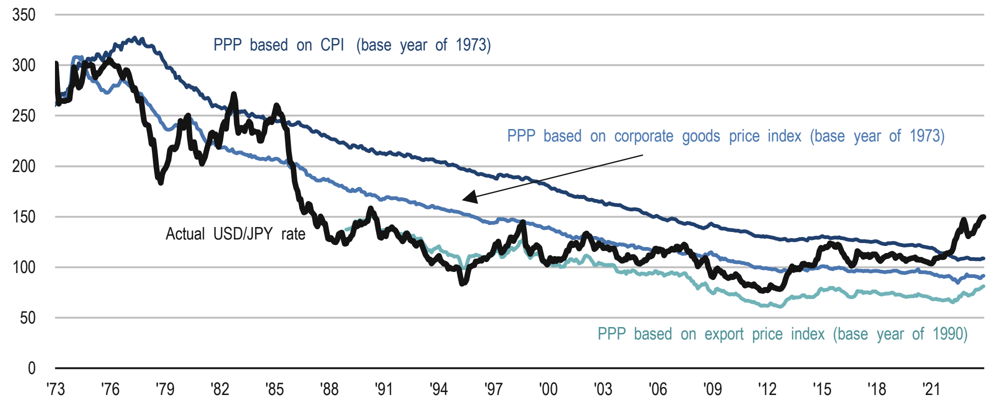
The yen has recently appreciated versus the dollar, partly due to the Fed's shift to a dovish stance and heightened expectations for a BOJ rate hike. Still, the yen remains around historically weak levels versus the dollar. For the USD/JPY actual exchange rate, there has been no change for the trend of dollar appreciation and yen depreciation versus the levels suggested by the purchasing power parity (Chart 1).

Normally, when the exchange rate deviates from the purchasing power parity, yen buying demand increases as exports become more competitive and current account surpluses grow. Over time, the exchange rate converges with the purchasing power parity. However, currently the yen has depreciated from the level suggested by the purchasing power parity, but export volumes are not increasing due to several factors and the actual exchange rate is not acting as a force for convergence with the purchasing power parity. In the next phase, if the Fed cuts rates toward the neutral rate, the dollar is expected to weaken with the USD/JPY moving closer to the purchasing power parity. However, this path of convergence differs from that originally envisioned when the purchasing power parity and the actual exchange rate diverged.

One possible reason for the lack of convergence when the actual exchange rate deviates from purchasing power parity, other than the lack of growth for Japan's exports, is the relatively low rate of growth for Japan's macroeconomic labor productivity (Chart 2). The reason is that real wages have not risen because labor productivity has not increased and the real effective yen exchange rate, which represents purchasing power after taking into account the disparity between domestic and foreign prices, has declined.

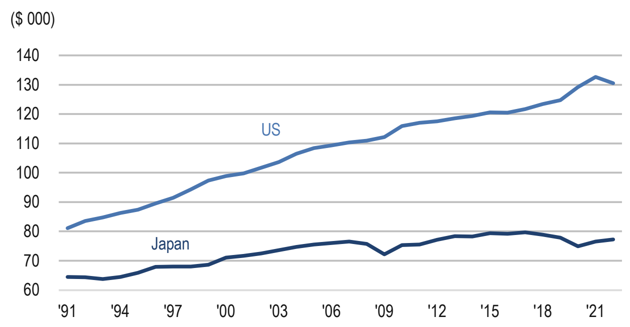
Chart 1: Purchasing Power Parity (PPP) and Actual Rate of USD/JPY



Source: Ministry of Internal Affairs and Communications, BOJ, US Department of Labor, Fed, Bloomberg; compiled by Daiwa.
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.

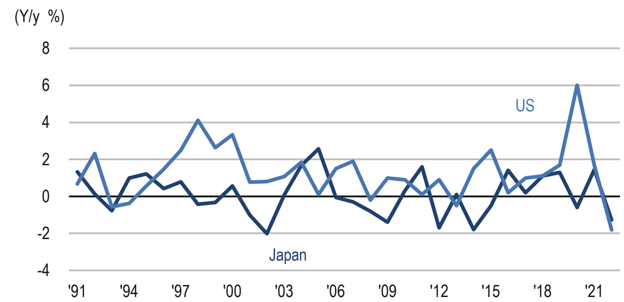
As for the reason behind Japan's sluggish labor productivity, BOJ Monetary Policy Board member Toyoaki Nakamura cited the decline in employee engagement and labor quality since the late-1990s, as a result of thorough cost-cutting and restrained investment (including investment in human resources and R&D), with priority given to business continuity and maintaining worker employment. Real wage growth has also remained low due to the sluggish labor productivity growth (Chart 3).

Chart 2: Per-capita Real Labor Productivity in Japan and US



Source: OECD; compiled by Daiwa.
Note: Based on PPP.

Chart 3: Real Wages in Japan and US



Source: OECD; compiled by Daiwa.

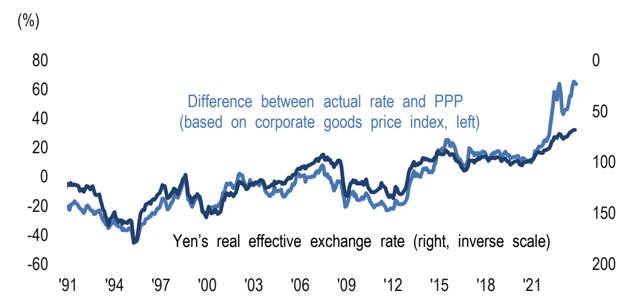
The low growth in real wages has also led to a downward trend in the real effective yen exchange rate. In Japan, real wages have not increased and the unit labor cost growth rate has been tepid. As a result, nominal wage growth has also been low, leading to deflation and disinflation. The low rate of price appreciation suggests a strong yen in terms of purchasing power parity. Actually, up until the coronavirus outbreak, the yen's nominal effective exchange rate had been trending upward. This means that the yen's nominal and real values have been moving in opposite directions (Chart 4)

This is also true for the USD/JPY. Since the price growth rate in Japan has been lower than that in the US, purchasing power parity has maintained a yen appreciation trend, as shown in Chart 1, and the actual exchange rate has also trended toward yen appreciation. However, if anything, the difference between the actual exchange rate and the level implied by the purchasing power parity has moved in the direction of a stronger dollar and a weaker yen. This corresponds to the fact that the real effective yen exchange rate has followed a downtrend (Chart 5). In other words, the low rate of labor productivity growth in Japan is thought to be one of the reasons why the USD/JPY actual exchange rate has been moving above the purchasing power parity.

Chart 4: Yen's Effective Exchange Rate

Source: BIS; compiled by Daiwa.
Note: Index using data in Jan 1991 as 100.

Chart 5: Yen's Real Effective Exchange Rate, Difference Between Actual Rate and PPP



Source: BOJ, US Department of Labor, BIS, Bloomberg; compiled by Daiwa.

If Japan experiences another bout of deflation or disinflation after inflation following the coronavirus had subsided, the USD/JPY purchasing power parity trend would probably help maintain yen appreciation. However, if Japan's labor productivity growth rate does not improve, the situation in which the real effective yen exchange rate keeps declining and the USD/JPY actual exchange rate struggles to return to the purchasing power parity could possibly continue.

Meanwhile, there is the possibility that over the medium to long term, the rate of price growth in Japan will increase (more than in the US) and the purchasing power parity trend will contribute to a stronger dollar against the yen. However, if that price growth is solely due to an increase in unit labor costs caused by labor shortages and is not accompanied by an increase in real wages due to improved labor productivity, the USD/JPY actual exchange rate will move further above the purchasing power parity, which is in an uptrend. In addition to the price growth rates in Japan and US, what drives the respective price increases will also determine the long-term trend for the yen exchange rate.

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