Daiwa's View

Convergence of actual USD/JPY rate and purchasing power parity

➢ They are likely to converge

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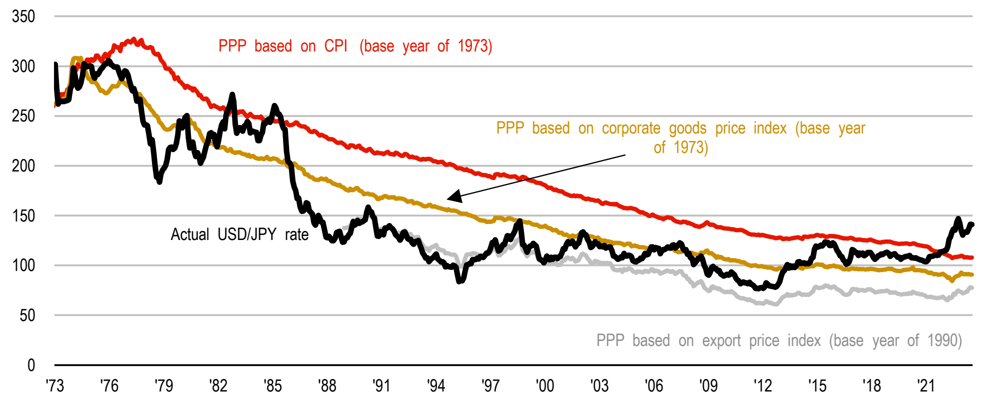
Historically, except for the 1970s, the inflation rate in Japan has rarely exceeded that in the US, and the purchasing power parity (PPP) of the USD/JPY rate has been moving in the direction of a weaker dollar/stronger yen. While Japan's CPI y/y growth in July exceeded that in the US for the first time in a long time, BOJ Governor Kazuo Ueda has repeatedly expressed his opinion that Japan's underlying inflation remains below the 2% target. In fact, we have not yet been able to determine whether wage hikes have become firmly established in Japan.

The yen has been weakening against the dollar due to widening of the Japan/US interest rate differential and deterioration of Japan's trade and services balances, so the USD/JPY rate continues to diverge from what PPP would suggest it should be. Usually, divergence of the currency rate from PPP strengthens export competitiveness, which widens the surplus of the current account balance. This leads to an increase in yen-buying demand, and then convergence towards PPP as time passes. Although PPP has been catching a trend over the long term, we wonder how its relationship with actual rates will develop going forward. In this report, we update our 27 December 2022 report *Daiwa's View: Things to watch for in 2023 (5): Convergence on purchasing power parity?*.

Since 2021, export volume has not grown despite a decline in the yen's real effective exchange rate (Chart 2 on next page). We can point out the following as reasons behind the lack of growth in export volume: (1) export companies not adjusting prices in line with fluctuating currency exchange rates and (2) an increase in the ratio of overseas production in the manufacturing sector.

Chart 1: Purchasing Power Parity, Actual USD/JPY 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.

We have seen a change in the approach Japanese export companies are taking in setting price. As has been increasingly pointed out since 2010, in order to stabilize price competitiveness, many Japanese companies have been adopting an approach called pricing to market (PTM), in which selling prices are set by destination. This can be said to have been a way of dealing with yen appreciation following the Global Financial Crisis by avoiding large fluctuations in selling prices in local currencies by lowering yen-denominated export prices. However, as a result, this limits the degree to which selling prices in local currencies can be lowered, even when the yen is weak, keeping export competitiveness from improving in terms of prices, making it difficult to increase export volume.

Looking at the US price index for imports from Japan, we find that prices were stable after mid-2010 due to the PTM approach taken by Japanese export companies. However, the index has risen substantially since 2021, despite yen depreciation (Chart 3). It is not clear whether this change in price setting behavior by companies is a temporary or structural change. However, this is likely one factor behind why export volume is not increasing and export competitiveness is not increasing due to yen depreciation.

Furthermore, manufacturers have been increasing the ratio of overseas production over the long term, but this is not a phenomenon limited to the period since the COVID-19 pandemic. When the ratio of overseas production increases, export volume does not fluctuate via currency exchange rates. This cannot fully explain the current situation in which export volume is not increasing despite the weak yen, but we think that it has been contributing to the current situation as a structural factor.

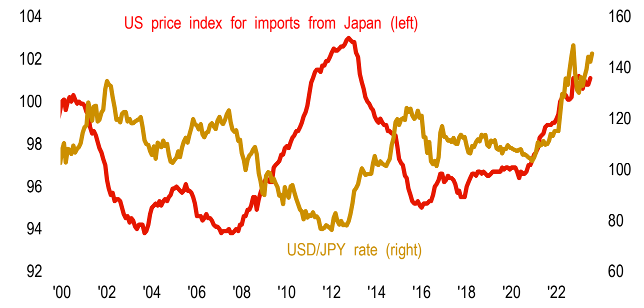
Due to these factors, export volume has not been increasing despite the weak yen. Meanwhile, as export selling prices have been rising, as mentioned above, the total export value has increased substantially since 2021. Nevertheless, due to the surging price of energy, such as crude oil, import value has increased more than export value, leading to the deterioration of the trade balance. Due to the deterioration of the trade balance, yen-buying demand has not increased despite the USD/JPY rate diverging in the direction of a yen that is weaker than what PPP suggests it should be. Therefore, convergence pressure is not working.

That said, the Japan/US interest rate differential is shrinking as US yields return towards the neutral level. Therefore, from the standpoint of interest rates, the USD/JPY rate is likely to decline over time (refer to our 18 August 2023 report *Daiwa's View: If the US economy makes a soft landing*), and actual rates are expected to approach PPP. Also, it is possible that the PPP level will shift towards a stronger dollar/weaker yen, and the divergence with actual rates will shrink. The above-mentioned change in price setting behavior by Japanese export companies suggests that Japan's export price index is now more likely than before to rise compared to the US. In fact, PPP based on the export price index has risen thus far, after hitting a bottom in March 2022. If we assume that export prices are now less likely to decline, that would mean that there will be a change in the long-term downtrend of PPP based on the export price index.

Chart 2: Yen's Real Effective Exchange Rate, Export Volume

Source: BIS, MOF; compiled by Daiwa Securities.

Chart 3: US Price Index for Imports from Japan, USD/JPY Rate



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

Moreover, consumer price trends may change going forward. A decreasing population also causes a decrease in aggregate domestic demand and shortages in the labor market. The impact this has on consumer prices and wages will change depending on what adjustments are made. This makes it difficult to have a clear outlook for prices. However, if the underlying CPI growth rate in Japan exceeds that in the US in a sustained way, both PPP based on the export price index and PPP based on CPI are likely to shift towards a stronger dollar/weaker yen.

If prices are rising in a sustained way, it is highly likely that a virtuous cycle is occurring in the form of a rise in real wages together with improved labor productivity. Furthermore, it is thought that improved labor productivity would push up the natural rate of interest in Japan and raise the interest rate level higher than current levels. Therefore, from the standpoint of the interest rate differential, appreciation pressure on the yen would come to bear on the actual USD/JPY rate. In other words, if Japan's price trends were to change, the actual rate and PPP would begin to converge. The interest rate differential stemming from differences in the monetary policy stances of Japan and the US is important with regard to short-term USD/JPY rate trends. Over the long term, however, rather than focus exclusively on monetary policy, we need to also carefully watch how the neutral interest rate changes, together with the labor market and price trends.

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