

Will Consumer Prices in Japan Continue to Rise?

Future Prospects for Consumer Prices

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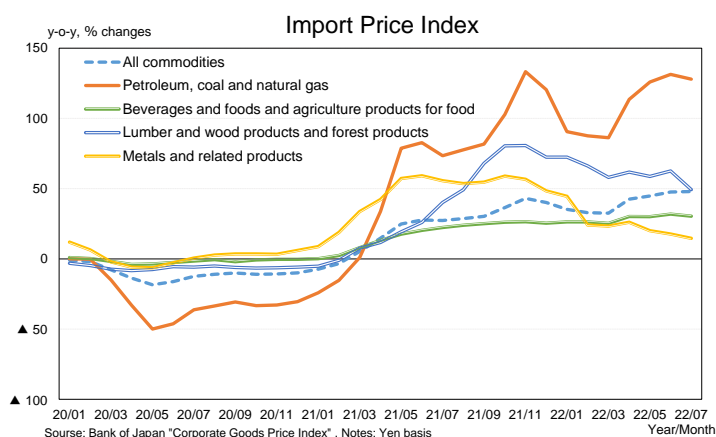
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I. Introduction

Consumer prices in Japan are rising. The consumer price index (CPI, all items less fresh food) has increased for the past 11 consecutive months; in April 2022, the rate of increase exceeded 2 percent and many economic forecasters predict that prices will continue to rise by more than 2 percent during the remainder of 2022. However, is the structural environment of Japan's inflation changing to one where the CPI increase is sustained in the medium to long run through a widening range of items that undergo price increases? We would like to consider this question in light of past trends and characteristics of prices in Japan, focusing on factors such as business cycles and expected inflation rate.

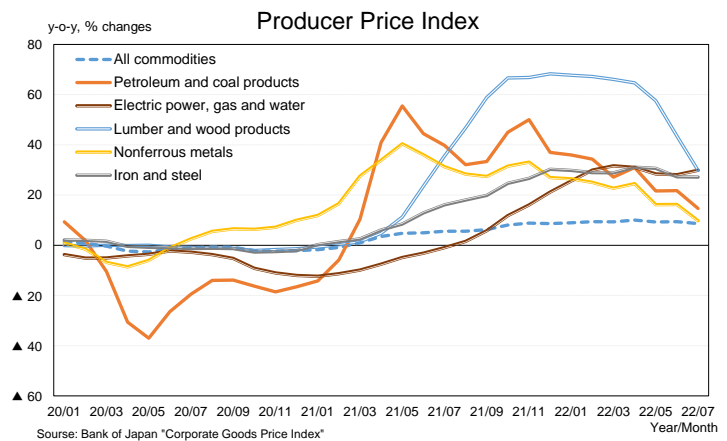
II. Recent Price Developments

In 2021, prices of commodities such as crude oil and natural gas began to soar due to the increase in demand associated with the global economic recovery. This sharp rise in commodity prices has led to an increase in import prices for Japan, a country that relies on imports for most of these commodities. Import prices have continued to rise year-on-year since March 2021, and since September 2021, the year-on-year rate of increase has exceeded 30 percent. Looking at the breakdown of the import prices,

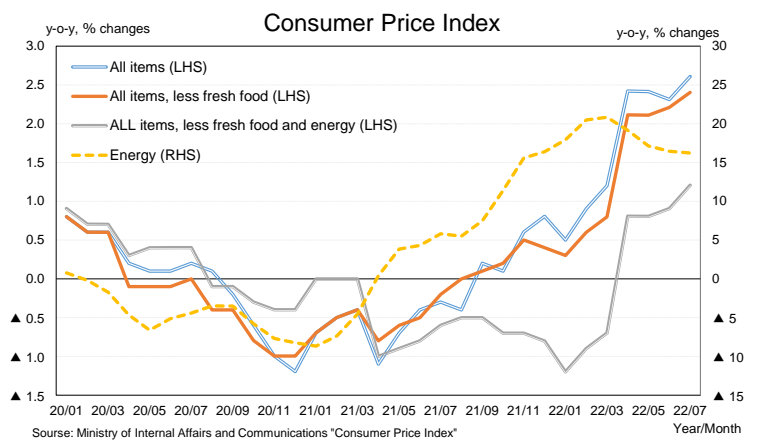


“Petroleum, coal, and natural gas” have risen approximately 100 percent; lumber, metals, and food products have also risen significantly.

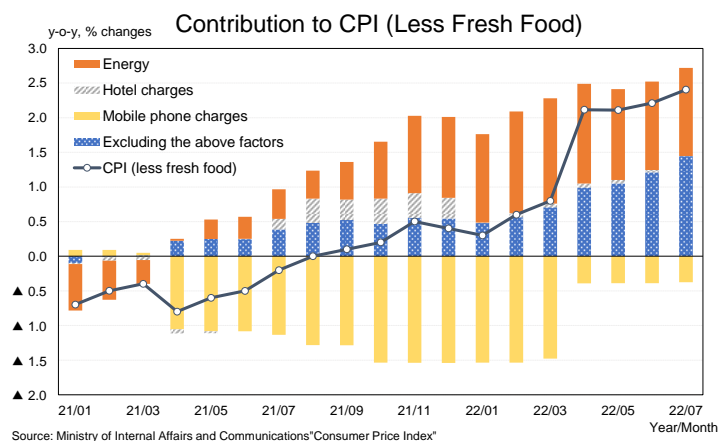
This has led to an increase in production costs for goods produced using imported commodities. In response to the rise in import prices, domestic corporate goods prices have similarly risen on a year-on-year basis since March 2021, rising 10.0 percent on a year-on-year basis in April 2022, the highest rate since December 1980 (10.4 percent).



Consumer prices also began to rise in 2021, accompanied by an increase in energy prices. CPI (all items less fresh food) has risen every month since September 2021, and has continued to rise above 2 percent year-on-year since April 2022. Note that the rate of increase rose sharply in April 2022; however, from April 2021 until March 2022, the year-on-year rate of increase included the temporal impact of a substantial reduction in mobile phone charges which were urged by the Japanese government.



Russia's invasion of Ukraine has further pushed up commodity prices. In addition, the yen is depreciating due to factors such as the U.S.' tightening of its monetary policy and a widening interest rate differential; this will cause yen-denominated import prices to rise further.



While it is projected that import prices and domestic producer prices will continue to rise, will the rise in consumer prices expand to a wider range of items besides energy, resulting in

sustained price increases?

III. Will higher energy prices lead to higher general prices?

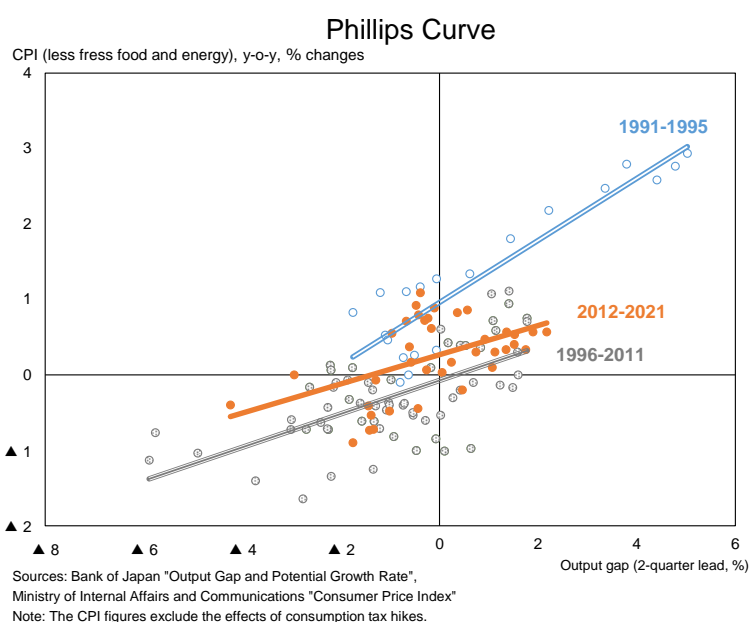
In general, the inflation rate is determined by business cycle factors (GDP gap, unemployment rate, etc.) and the expected inflation rate. Import price increases also have an impact.

When an economy is booming, the tightening of supply–demand conditions caused by increased demand will likely exert upward pressure on prices. In addition, if future price increases are anticipated, current prices will be affected through wage- and price-setting which take into account such anticipated increases. Rising import prices due to surging commodity prices and a weakening yen will directly increase domestic prices if the imported goods are final goods. If the imported goods are raw materials or intermediate goods, the effect on domestic prices depends on whether companies pass through the increased production costs to domestic prices. When imported goods have a direct relationship with domestic prices—e.g., the relationship between crude oil prices and energy prices such as petroleum products, electricity charges, and manufactured and piped gas charges—a price increase in imported goods leads to higher domestic prices.

A. Business Cycle

In the process of recovering from the substantial economic fallout due to the COVID-19 pandemic, it is expected that the improved supply–demand conditions caused by increased demand will put upward pressure on consumer prices.

However, the degree of influence of business cycle factors on prices is said to have weakened since the late 1990s.

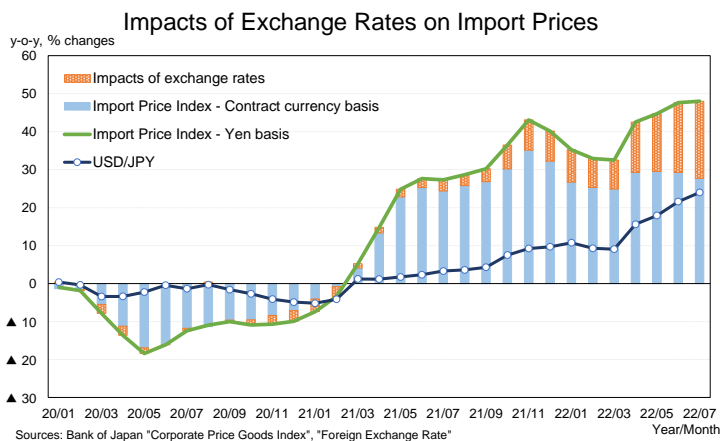


In addition, supply-side constraints, such as shortages of semiconductors and components, will also cause supply–demand conditions to tighten. However, it has been pointed out that Japanese firms have a strong tendency not to raise prices but to ask customers to endure delivery delays when facing supply-side constraints (Kuroda, 2021); as long as this trend

continues, the upward pressure on prices due to tighter supply–demand conditions will not become significant.

B. Commodity Prices, Weaker Yen

The current rise in consumer prices stems from higher import prices due to soaring commodity prices. In addition, the recent depreciation of the yen has greatly increased the impact of commodity prices on domestic energy prices. However, unless the commodity price hikes and the yen's depreciation continue significantly over a long period of time, their impact on consumer prices will only be temporary.



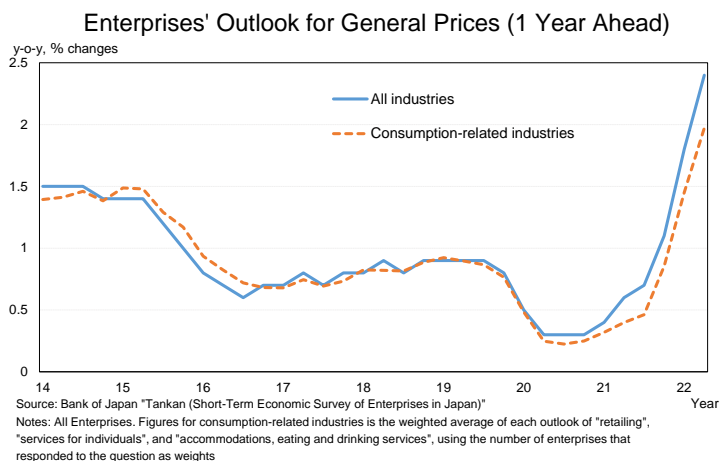
C. Expected Inflation Rate

Will the increased production costs due to higher energy prices be passed on to prices of final consumer goods and services, resulting in higher consumer prices for a wide range of items? The key factors in determining this are the expected inflation rate, firm price-setting behaviors, and consumer attitudes toward higher prices.

1. Expected Inflation Rate

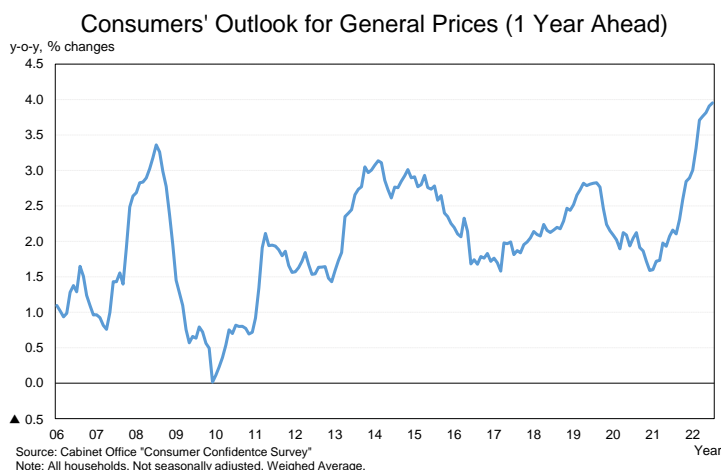
In general, firms faced with increased costs of production would like to raise prices if possible. Moreover, if general prices are expected to rise in the future, or at least if a firm's competitors are expected to raise their prices, the firm will be more likely to raise its prices. Furthermore, if consumers also expect prices to rise, the upward pressure on wages will make it easier for them to accept price increases. Thus, the expected inflation rate is important.

Currently, many of the relevant economic indicators show inflation expectations are clearly rising. Looking at survey-based indicators, the "Enterprises' outlook for general prices" in the Bank of Japan's (BOJ's) Tankan (Short-Term Economic Survey of



Enterprises in Japan) has turned upward significantly since around 2021; in the June 2022 Tankan, the average outlook for one-year ahead general prices for all enterprises in all industries was 2.4 percent. Note that when narrowed down to private consumption-related industries, it is lower than that of all industries.

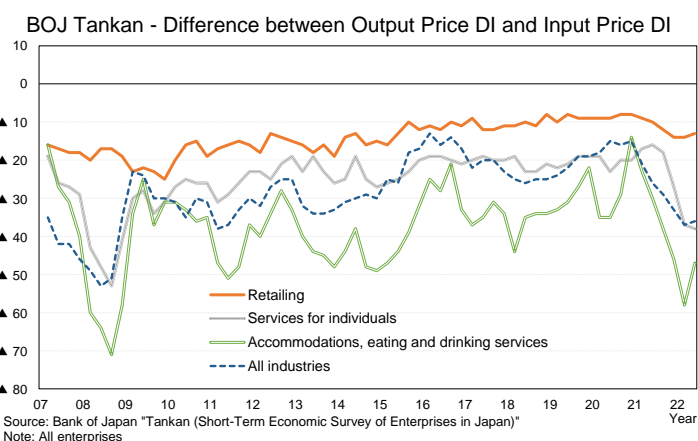
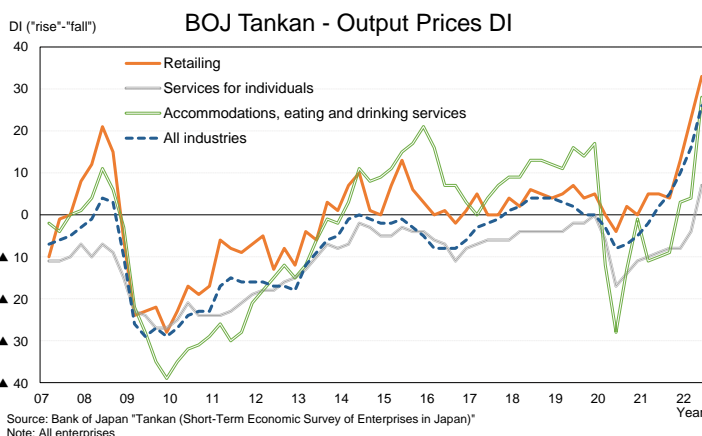
The expected inflation rate for consumers has also reached nearly 4 percent, estimated from household expectations of prices a year ahead in the Cabinet Office's Consumer Confidence Survey.



2. Firm Price-setting Behavior

The widespread expectation that prices will rise in the future might not necessarily mean that firms will be able to raise prices easily. If firms do not raise prices sufficiently, the inflation expectation should eventually be revised.

According to the BOJ's Tankan, the retail sector tended to raise selling prices as purchase prices rose. However, in "Accommodations, eating and drinking services" and "Services for individuals" covering travel and entertainment, sales price increases were limited compared to purchase price increases, indicating that the gap between the input price diffusion index (DI) (rise minus fall) and the output price DI (rise minus fall) is widening. This suggests that the pass-through of production cost increases to consumer prices is not being fully implemented.



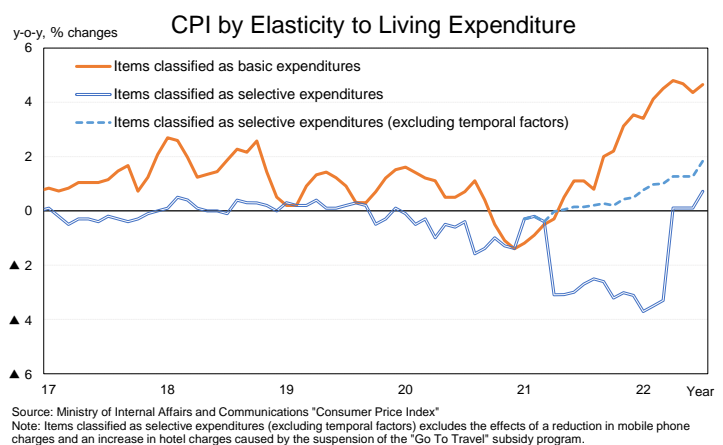
Firm cost increase pass-through behavior depends on the characteristics of an item, such as

whether it is a necessary good or not. For necessities such as food and utilities, the volume of consumption would be difficult to reduce even if prices increase. Therefore, it is easier for firms to raise prices of necessary goods because the negative impact of a price increase would not be relatively large.

Moreover, in terms of food products, it has been pointed out that there is "synchronization in the timing of price changes" (Bank of Japan, 2022). It is possible that price increases of food products accelerate in such a way that when some food products companies raise their prices, other food products companies also raise their prices.

Furthermore, in the absence of sufficient wage increases, rising prices of necessary goods such as food, utilities, and gasoline, could lead to a reduction in real income; thus, consumers might lose the ability to afford items besides necessities.

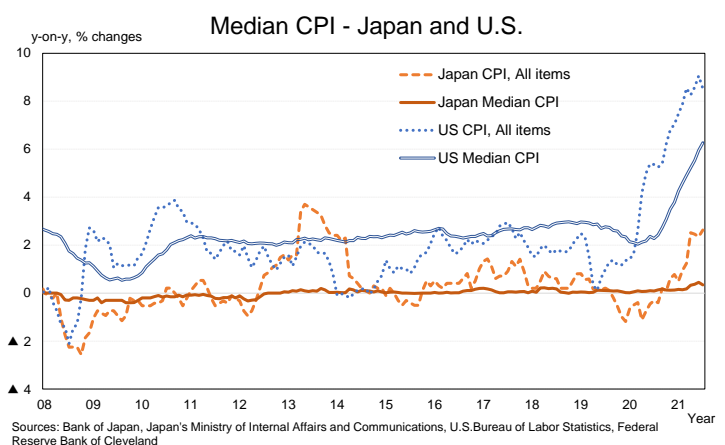
In fact, CPI classified by the elasticity to living expenditure shows that consumer prices of items classified as basic expenditure, which corresponds to necessary goods, covering energy and many food products, have risen more than 4 percent on a year-over-year basis. On the other hand, the increase in consumer prices of items classified as selective expenditures has been limited, even excluding the impact of the large reduction in mobile phone charges.



3. Consumer Attitudes toward Price Increases

Firm price-setting behavior is greatly affected by consumer reaction to price increases. While it is natural for consumers not to welcome price increases, Japanese consumers' reluctance to accept price hikes is said to be particularly strong (Watanabe, 2022). In Japan, it is characteristic for consumers to be accustomed to prices that remain the same for a long time.

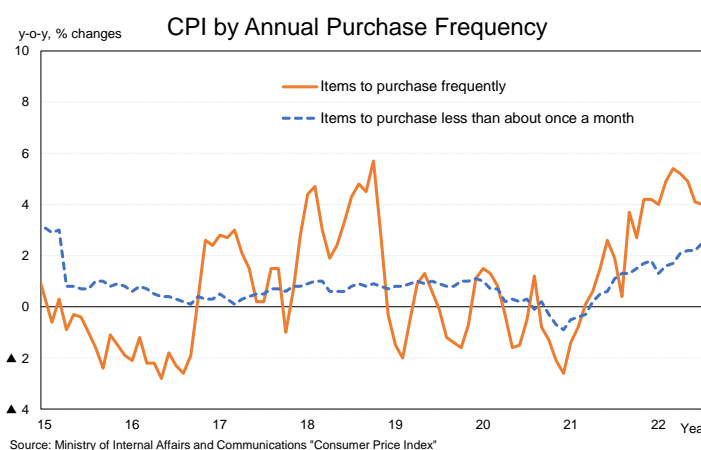
Focusing on the interior of the distribution of the consumer price changes, the year-



over-year rate of change in the weighted median CPI has remained around 0 percent in Japan. This contrasts with the U.S., where the rate has been approximately 2 percent until recently.

An economic model developed by Rotemberg (2005) to explain price rigidity shows that only when consumers perceive prices as unfair do they react negatively to price hikes. Applying this model to Japan, consumers may take it for granted that the prices of goods and services do not change significantly, and may view price hikes as unfair.

It has been pointed out that consumer perception of price increases is strongly influenced by price increases for goods that they purchase more frequently; the higher the perception of price increases, the more negatively consumers tend to perceive price increases (Takahashi and Tamanyu, 2022). In light of this, it is highly likely that higher energy prices and food prices will increase



households' perception of inflation, leading households to perceive price hikes negatively. The increased reluctance of consumers to accept price hikes could result in a limited range of consumer price increase.

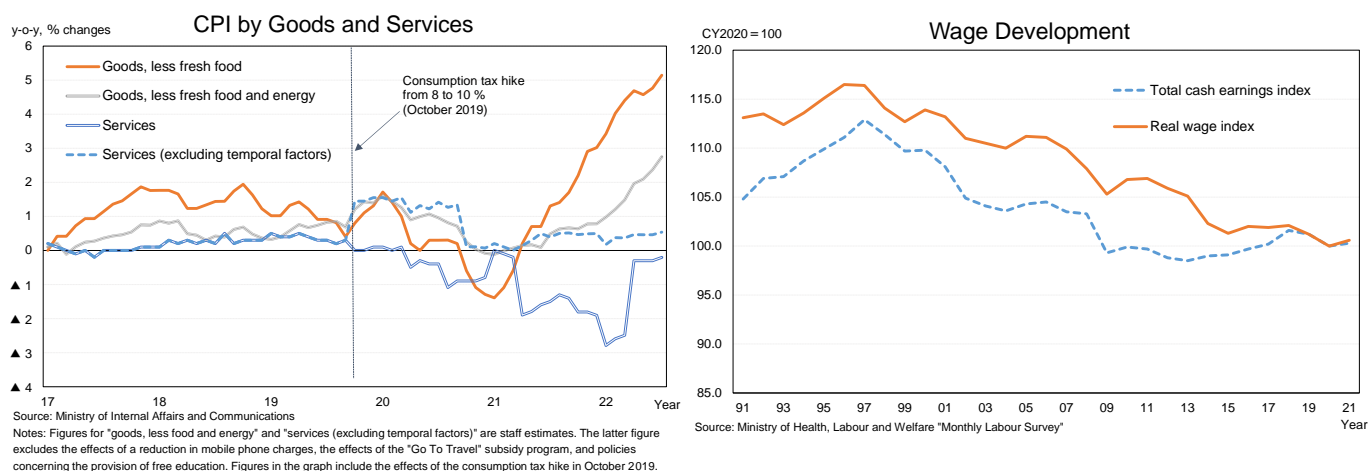
While it is true that the expected inflation rate is rising, it is highly likely that the degree of pass-through of raw material cost increases to consumer prices will vary between necessities and luxuries. Moreover, higher energy and food prices are likely to make consumers more reluctant to accept price increases, contributing to a more modest price pass-through for other items. As a result, higher inflation expectations may be revised downward over time. However, as consumers continue to experience higher prices and become accustomed to a rising price environment, their attitudes toward price increases and firm price-setting behavior may change, and the underlying trend of the inflation expectation might rise.

4. Prices of Services

When consumer prices are divided into goods and services, the fluctuation in service prices has been relatively small. Although they fell sharply in the most recent period due to the impact of reductions in mobile phone charges, service prices have remained largely unchanged if adjusted for the impact of these and other factors.

Increases in service prices are considered to be highly linked to wage increases, and unless

the situation changes to the one where wages rise continuously, it would be difficult to expect the underlying trend of service prices to rise.



IV. Conclusion

Japan's CPI has been rising, triggered by soaring commodity prices, and is projected to remain over 2 percent during 2022. In addition to the increase in energy prices, the pace of food price increases is accelerating, and the CPI inflation rate may temporarily rise significantly. However, the pass-through of increased raw material costs to consumer prices has not been sufficiently realized, and in light of consumer attitudes toward price hikes and the past trends in service prices, it is unlikely that price increases will expand to a wide range of consumer items or further change to a situation where CPI increases by around 2 percent annually as the underlying trend.

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