

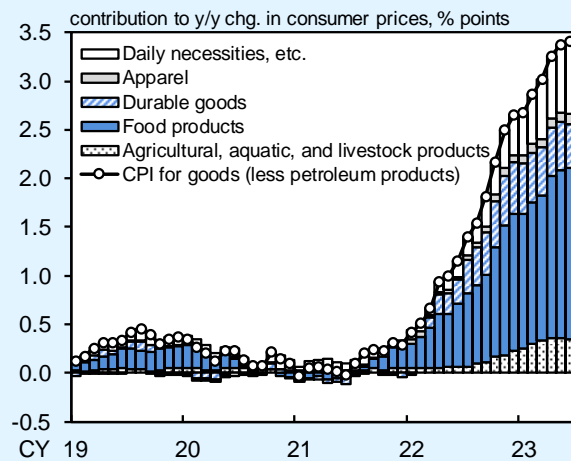
(Box 2) Upward Pressure of Costs Led by a Rise in Import Prices and the CPI

The year-on-year rate of change in the CPI (all items less fresh food and energy) has been following an uptrend. Looking at its developments separately for goods and services shows that the rise in prices of goods, mainly food and daily necessities, has been remarkable, and it seems that upward pressure of costs led by past rises in import prices has continued to be passed on to selling prices (Chart B2-1). This box examines the current situation of and future issues regarding such upward pressure of costs and firms' price-setting behavior in response.

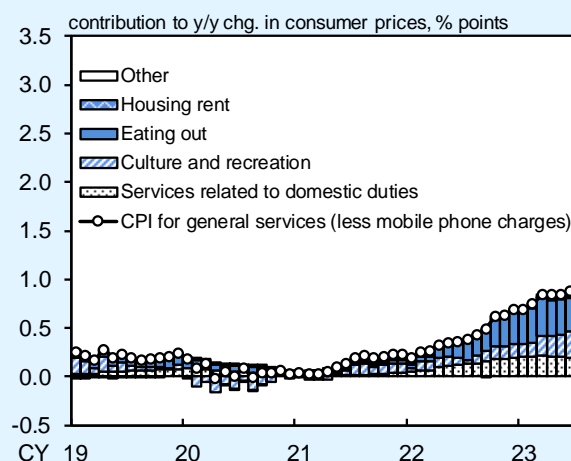
First, looking at import prices to examine the current situation of the upward pressure of costs, the year-on-year rate of change has turned negative as international commodity prices have been lower than a while ago (Chart 44). The effects of such waning of upward pressure of costs stemming from past rises in import prices have gradually spread from the upstream to the downstream stages of supply chains in business-to-business (B to B) transactions. Second, the final demand-intermediate demand (FD-ID) price indexes indicate that the year-on-year rates of change in the indexes for stages 1 and 2 of the ID, which show developments in selling prices at the upstream stages, have been negative (Chart 45). Meanwhile, the indexes for stages 3 and 4 of the ID, which are relatively downstream stages, have been affected by these developments in the

Chart B2-1: CPIs for Goods and Services

1. Goods (Less Petroleum Products)



2. General Services (Less Mobile Phone Charges)

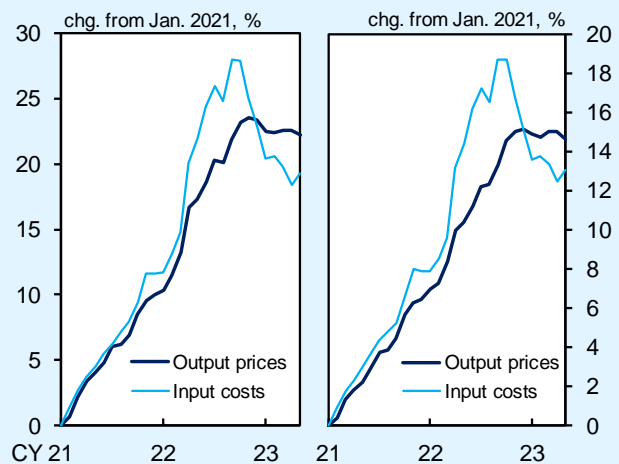


Source: Ministry of Internal Affairs and Communications.
 Notes: 1. Figures are the contribution to changes in the CPI (less fresh food and energy). Figures are staff estimates and exclude mobile phone charges and the effects of the consumption tax hike, policies concerning the provision of free education, and travel subsidy programs.
 2. Figures for services related to domestic duties include services related to housing repairs and maintenance.

upstream stages.¹⁷ A closer look at these indexes shows that (1) firms at stages 3 and 4 could only partially pass on a rapid increase in input costs to selling prices toward the second half of 2022, and thereafter, (2) while input costs have turned to a decline, past cost increases have continued to be passed on to selling prices, and thus such prices have been more or less flat (Chart B2-2).¹⁸ Reflecting these developments, the pace of increase in input costs (intermediate input costs) faced by firms that conduct business-to-consumer (B to C) transactions has decelerated (Chart B2-3).¹⁹

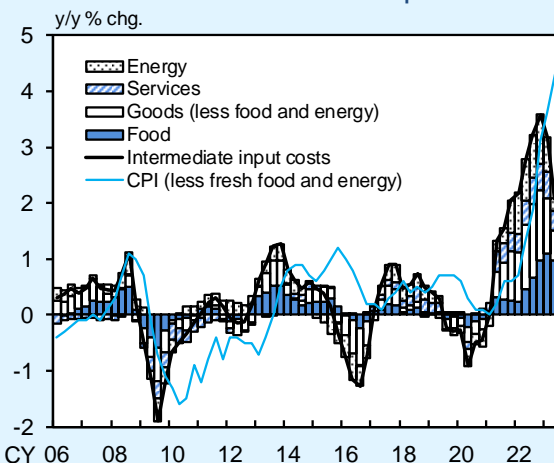
As explained, the effects of the waning of upward pressure of costs led by past rises in import prices have started to gradually spread to B to C transactions, albeit with a time lag, through transactions at each stage of supply chains. Therefore, it is quite likely that the upward pressure on the CPI led by past rises in import prices will wane.

Chart B2-2: Business-to-Business Prices
1. ID Index (Stage 3) 2. ID Index (Stage 4)



Sources: Ministry of Internal Affairs and Communications; Bank of Japan.
Note: Figures for input costs are estimates of firms' costs of inputs such as raw materials at the upstream stages using the 2015 *Input-Output Tables for Japan*. Figures for output prices are the ID indexes for stages 3 and 4, respectively, indicating the selling prices to each stage.

Chart B2-3: Intermediate Input Costs



Sources: Ministry of Internal Affairs and Communications; Bank of Japan.
Note: The CPI figures are staff estimates and exclude mobile phone charges and the effects of the consumption tax hikes, policies concerning the provision of free education, and travel subsidy programs. Intermediate input costs are calculated by multiplying the intermediate input ratio of each sector in the 2015 *Input-Output Tables for Japan* by price data from the corporate goods price index (CGPI) or the services producer price index (SPPI) and then taking the weighted average using consumption expenditure shares as weights.

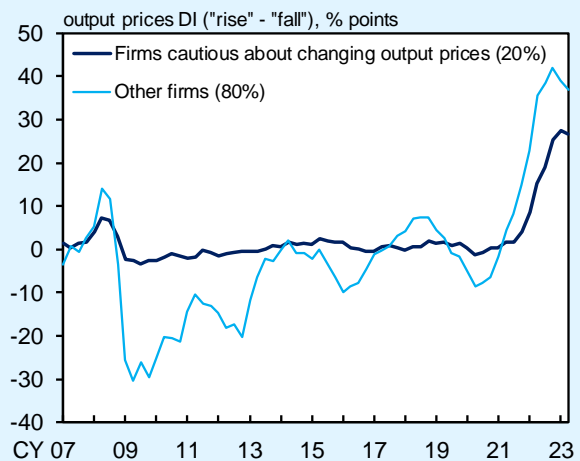
¹⁷ In the FD-ID price indexes, stage 3 includes goods and services that are close to final demand, such as motor vehicle parts, integrated circuits, and air transport, while stage 4 includes final demand goods such as passenger motor cars and machine tools, as well as services such as hotels. For details, see "Explanation of Final Demand-Intermediate Demand price indexes (FD-ID price indexes)," released by the Research and Statistics Department of the Bank of Japan in June 2022.

¹⁸ As input costs are estimated here based on macroeconomic statistics, the figures should be interpreted with considerable latitude. The extent of cost pass-through has likely varied considerably across individual items and firms.

¹⁹ To measure the intermediate input costs for the production of consumer goods and services, excluding fresh food and energy, the intermediate input cost index is estimated based on the transaction structure in the input-output tables. For details, see Box 3 in the April 2022 Outlook Report.

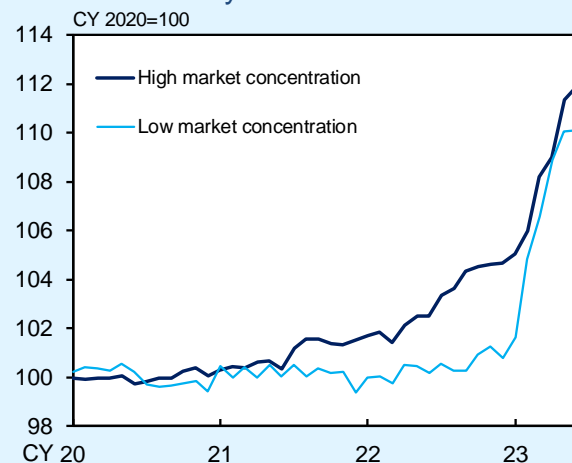
However, as has been pointed out, it warrants attention that, since last summer, moves to raise selling prices have been spreading rapidly even to industries and firms that were cautious about raising prices in the past (Chart B2-4). In addition, recently, price rises are spreading to items for which a pass-through of cost increases has been contained even during the current period of inflation, mainly because of fierce competition among firms amid a situation of low market concentration (Chart B2-5). The background to such changes in firms' behavior is that (1) final demand has been firm, partly supported by pent-up demand, despite price rises, and (2) as many firms have had no choice but to consider raising prices in the face of the upward pressure of costs, it has become less difficult, in terms of competition, for firms to pass on cost increases to their selling prices.²⁰ It is necessary to continue paying close attention to whether the pass-through of cost increases becomes more prolonged or intensifies with firms shifting their price-setting stance further toward raising prices.

Chart B2-4: Change in Firms' Price-Setting Stance



Source: Bank of Japan.
 Note: Based on the *Tankan* (all industries and enterprises). Figures for "firms cautious about changing output prices" are for firms that for at least about 95 percent of the period from 1991 to 2019 replied that their output prices were "unchanged."

Chart B2-5: Market Concentration and Prices of Daily Necessities



Sources: Ministry of Internal Affairs and Communications; Japan Fair Trade Commission.
 Note: Daily necessities that fall into the top 50 percent in terms of the Herfindahl-Hirschman Index are defined as items with a high market concentration and vice versa. Figures in the chart are the weighted averages of these selected CPI items.

²⁰ Regarding nonlinear change in firms' price-setting behavior in the current phase, see the following: Box 3 in the October 2022 Outlook Report, and "Firms' Recent Price-Setting Stance: Evidence from the *Tankan*," *Bank of Japan Review Series*, no. 23-E-2, February 2023.