# Monetary Policy and Firms' Behavior: Transmission Channels of Monetary Policy and Japanese Firms' Structural Changes

Speech at the Meeting of Councillors of Nippon Keidanren (Japan Business Federation) in Tokyo

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# Introduction

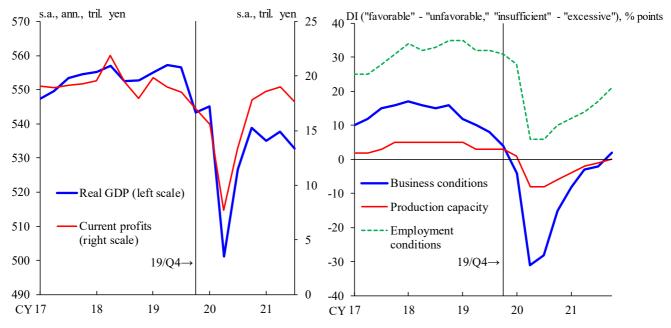
- I. Transmission Channels of Monetary Policy
- II. Toward Strengthening Japan's Economic Growth Potential and Achieving the Price Stability Target

Conclusion

# Economic Developments since the Outbreak of COVID-19

### Real GDP and Corporate Profits

#### Business Conditions, Production Capacity, and Employment Conditions (Tankan)



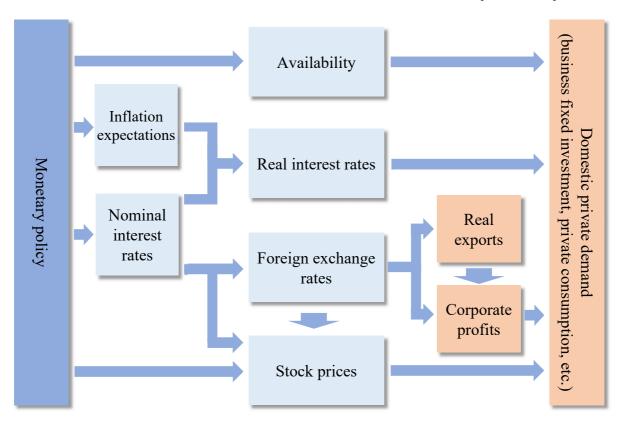
Note: In the left-hand chart, figures for current profits are based on the *Financial Statements Statistics of Corporations by Industry, Quarterly* and exclude "finance and insurance" and pure holding companies. Sources: Cabinet Office; Ministry of Finance; Bank of Japan.

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Chart 2

#### I. Transmission Channels of Monetary Policy

# Main Transmission Channels of Monetary Policy



#### **Financial Positions of Firms** Total Amount Outstanding of Capital Adequacy Ratio Cash and Deposits amount outstanding, tril. yen % % 300 15 45 Cash and deposits (left scale) 14 40 250 Ratio to total assets (right scale) 13 35 200 12 30 150 25 11 100 20 10 50 Q 15 0 10 8 FY-end 95 97 99 01 03 05 07 09 11 13 15 17 19 FY-end 95 97 99 01 03 05 07 09 11 13 15 17 19

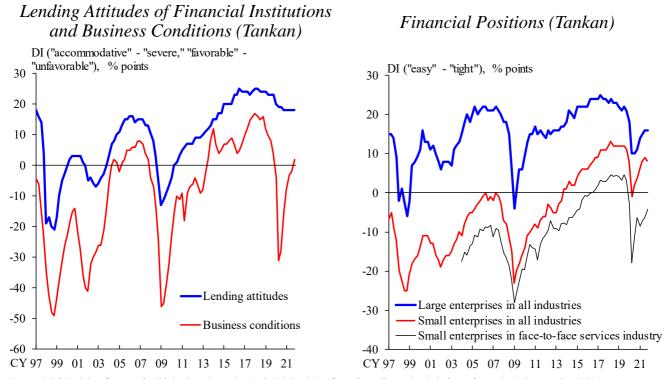
Note: Figures are based on the Financial Statements Statistics of Corporations by Industry, Annually and exclude "finance and insurance." Source: Ministry of Finance.

I. Transmission Channels of Monetary Policy: (1) Availability Channel

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Chart 4

# **Financial Conditions**



Note: In the left-hand chart, figures are for all industries and enterprises. In the right-hand chart, figures for small enterprises in the face-to-face services industry are the weighted averages of the DIs for retailing, transport & postal activities, services for individuals, and accommodations, eating & drinking services. The weight of each industry used for figures up through December 2006 is fixed at that for March 2007. Source: Bank of Japan.

# Extension of Financing Support for SMEs

Japan's Financial Conditions: Improved on the Whole

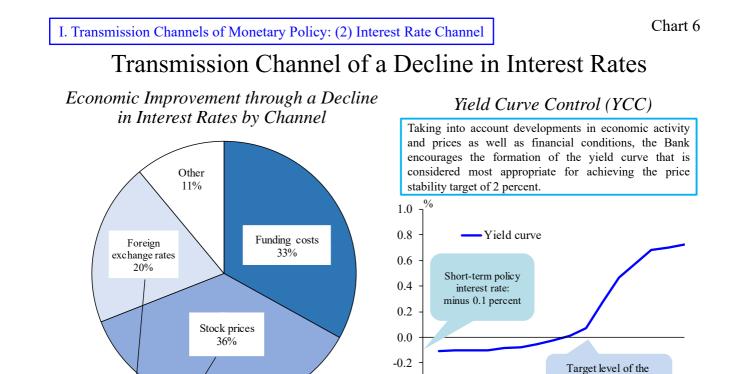
Large firms: <u>Issuance conditions for CP and corporate bonds have been favorable</u>. Precautionary <u>demand for</u> <u>liquidity has subsided</u> in the loan market.

SMEs: Financial positions have been on an improving trend on the whole, but <u>weakness has remained in</u> <u>some segments</u>, such as the face-to-face services industry.



|  | Purchases of CP and corporate bonds   | Special Funds-Supplying Operations to Facilitate Financing in Response to COVID-19 |   |  |
|--|---|--|---|--|
|  |   | Against private debt pledged as collateral   | Against government-<br>supported loans  | Against non-government-<br>supported loans   |
|  | Additional<br>purchases<br>to be completed<br>Continue purchasing the<br>same amount as prior to<br>the COVID-19 pandemic | To be completed  | <ul> <li>Extend by six months the fund-provisioning to financial institutions against their loans</li> <li>➢ Under the revised terms and conditions</li> <li>△ Applied interest rate: 0% (Category III)</li> <li>△ Amount added to the Macro Add-on Balances: the amount outstanding of funds provided</li> </ul> | <ul> <li>Extend by six months</li> <li>Under the current terms and conditions <ul> <li>Applied interest rate: 0.2% (Category I)</li> <li>Amount added to the Macro Add-on<br/>Balances: twice as much as the amount<br/>outstanding of funds provided</li> </ul> </li> </ul> |
|  |   |  |   |  |
|  | Mainly for large firms and housing loans  |  | Mainly for SMEs   |  |

For the time being, the Bank will closely monitor the impact of COVID-19 and will not hesitate to take additional easing measures if necessary.



Note: The left-hand chart shows the results from estimating through which transmission channels a decline in interest rates improves the output gap, using a vector-autoregressive (VAR) model with coefficient restrictions and employing the following eight variables: (1) output gap; (2) interest rates (3-month); (3) interest rate spread (2-year minus 3-month); (4) interest rate spread (5-year minus 2-year); (5) interest rate spread (10-year minus 5-year); (6) aggregate funding costs; (7) the yen's nominal effective exchange rates; and (8) stock prices. For details, see Bank of Japan; "Assessment for Further Effective and Sustainable Monetary Easing" (March 2021).

Channel via financial and capital markets

-0.4

-0.6

40

long-term interest rate:

around zero percent

30

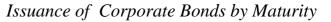
residual maturity, years

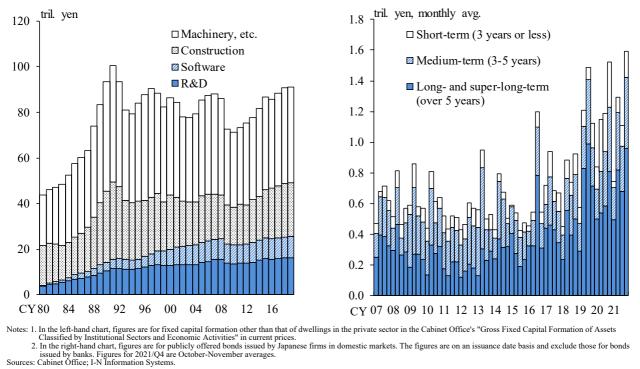
 $_{CY}0 \ 1 \ 2 \ 3 \ 4 \ 5 \ 6 \ 7 \ 8 \ 9 \ 10 \ 15 \ 20$ 

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### Fixed Capital Formation and Increased Issuance of Corporate Bonds with Longer Maturity

#### Fixed Capital Formation (SNA)





I. Transmission Channels of Monetary Policy: (3) Foreign Exchange Rate Channel

Chart 8

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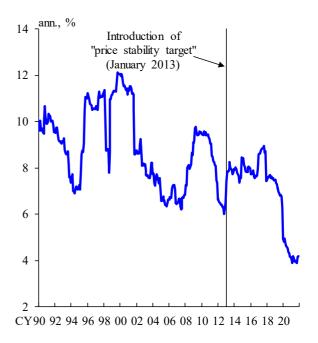
Chart 7

# Decrease in Volatility of Nominal Exchange Rates

#### U.S. Dollar/Yen



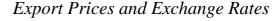
Historical Volatility of U.S. Dollar/Yen

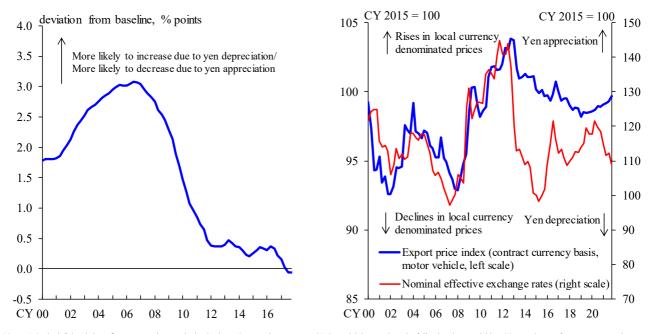


Note: In the right-hand chart, figures are the annualized three-year standard deviations of the monthly rate of change for U.S. dollar/yen. Source: Bloomberg.

# **Exports and Exchange Rates**

#### Exchange Rate Sensitivity of Exports





Notes: 1. In the left-hand chart, figures are estimates obtained using a time-varying parameter VAR model that employs the following three variables: (1) growth rate of overseas economies; (2) the yen's real effective exchange rates; and (3) real exports. The figures are 4-quarter cumulative changes in real exports in response to a 10% Japanese yen depreciation shock. For details, see Box 2 of the April 2018 Outlook Report.
 2. In the right-hand chart, figures for 2021/Q4 are October-November averages.
 Sources: IMF; BIS; Bank of Japan; Ministry of Finance, etc.

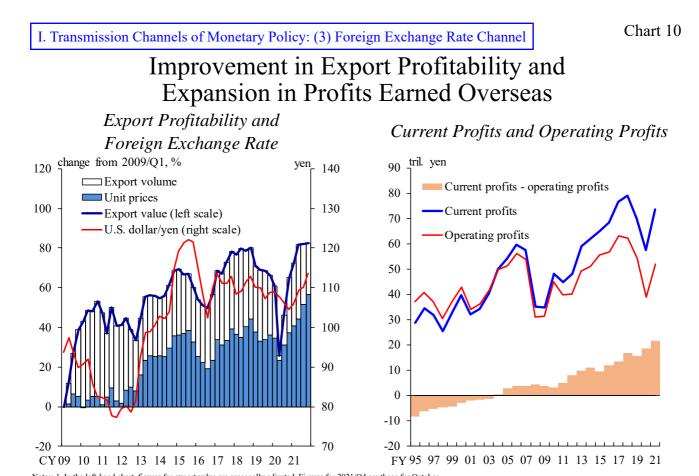


Chart 9

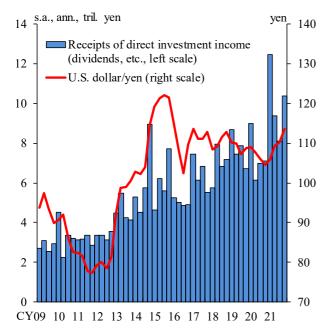
Notes: 1. In the left-hand chart, figures for export value are seasonally adjusted. Figures for 2021/Q4 are those for October. 2. In the right-hand chart, figures are based on the *Financial Statements Statistics of Corporations by Industry, Quarterly* and exclude "finance and insurance." Figures from FY 2009 onward exclude pure holding companies. The figure for FY 2021 is the seasonally adjusted annualized amount for the first half of the fiscal year. Sources: Ministry of Finance; Bloomberg.

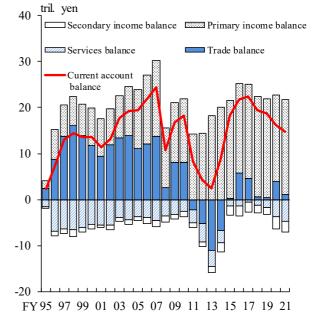
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#### Chart 11

## Current Account

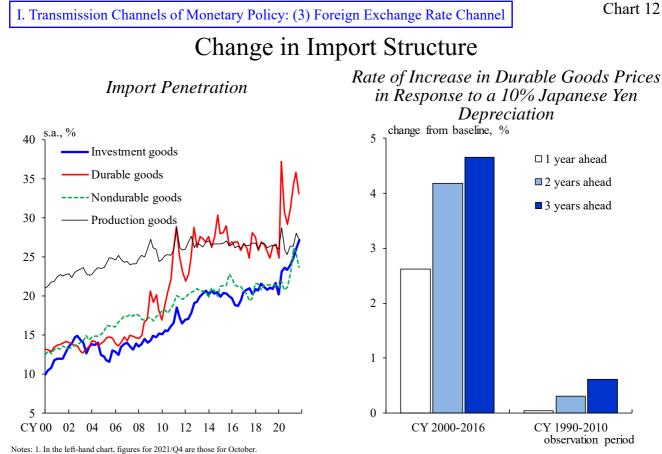
#### Direct Investment Income and Foreign Exchange Rate





Current Account

Notes: 1. In the left-hand chart, figures for 2021/Q4 are those for October.
2. In the right-hand chart, figures for FY 2021 are the seasonally adjusted annualized amounts for April through October that year.
Sources: Ministry of Finance; Bank of Japan; Bloomberg.

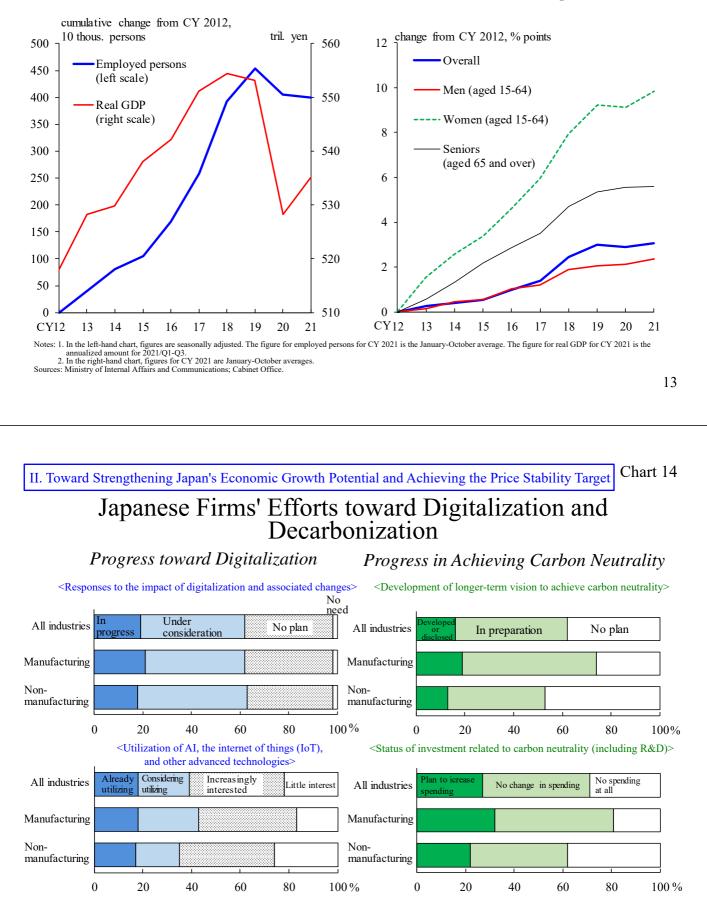


Notes: 1. In the left-hand chart, figures for 2021/Q4 are those for October. 2. The right-hand chart shows impulse responses to a 10% yen depreciation shock obtained from an estimation using a VAR model that employs the following four variables: (1) real crude oil prices; (2) the yen's nominal effective exchange rates; (3) output gap; and (4) CPL. For details, see Box 4 of the October 2016 Outlook Report. Sources: Ministry of Economy, Trade and Industry; Ministry of Internal Affairs and Communications; Cabinet Office; BIS; Ministry of Finance, etc.

# GDP and Labor Input

### Number of Employed Persons and GDP

#### Labor Force Participation Rate



Note: The graphs show the results from a survey of large firms. Source: Development Bank of Japan.



## **R&D** Investment

International Comparison of R&D Investment

