The study on the economic trends and real estate market conditions of Japan in 2024

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1. Introduction

□ Research overview

- Japan's macroeconomy condition: facing normalization of monetary easing policy(Bank of Japan)

- The potential global economic downturn : Russia-Ukraine war and Israeli–Palestinian conflict.

- Purpose of this study : To analyzes the outlook for Japan's macroeconomy and real estate market conditions in 2024.

- This study composes a questionnaire survey and logistic regression model to analyze the real estate market conditions and macroeconomy, particularly in the Tokyo metropolitan area.
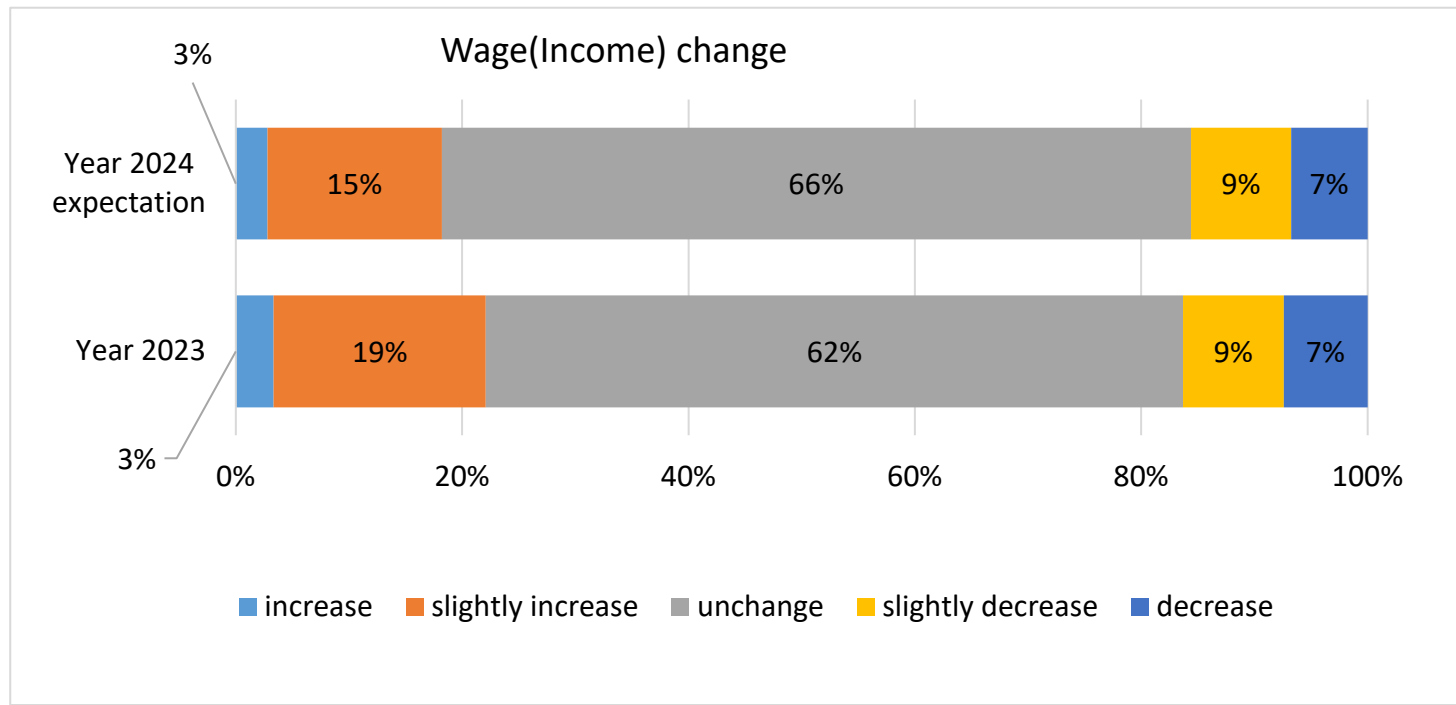
1. Introduction

☐ Questionnaire survey Overview

・ Survey sample size：2,000individuals in the Tokyo metropolitan area(1,000 men,1,000 women)

・ Survey Method：Internet questionnaire survey

・ Survey Period：Feb,19th to Feb,21st in 2024

・ Questionnaire structure：wage changes, consumption changes, real estate prices, and consumer perceptions regarding real estate market and economic conditions.

☐ Logistic regression model

・ This study uses logistic regression model with the survey data to analyze the real estate market.

☐ This study has a significant implication：using questionnaire survey research and logistic regression models to analyze the relationship between real estate market conditions and macroeconomics.

2. Survey results

● Wage(Income) Changes in 2023 and 2024(expectation)

✓ 62% no change in 2023.

✓ 66% expected no change in 2024.

● In 2024, price increases and the normalization of monetary easing. ➡ The lack of expected wage increases may create downward pressure on the macroeconomy.
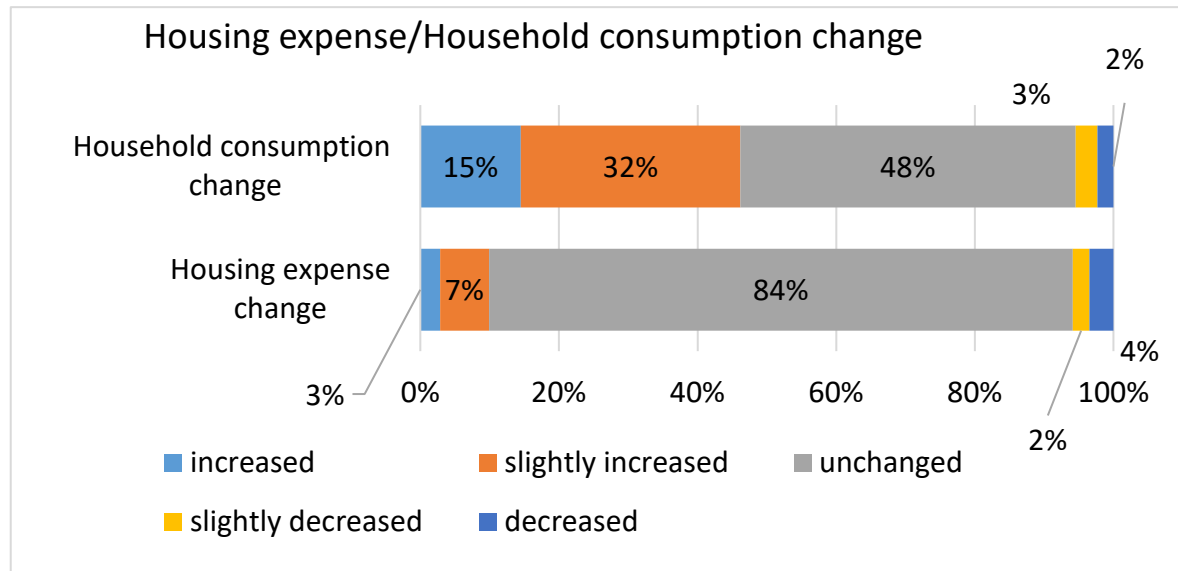
Wage(Income) change

	increase	slightly increase	unchange	slightly decrease	decrease
Year 2024 expectation	3%	15%	66%	9%	7%
Year 2023	3%	19%	62%	9%	7%

2. Survey results

● Housing Expense change

✓ 84% no change/ 10% increase in housing expense.

➢ Housing loan interest rate remains stable.

● Household Consumption　Changes

✓ 47% household consumption increased./48% no change.

➢ Yen depreciation and imported resources price rising.
　➡ household disposable income may decrease and potentially negatively affect Japan's macroeconomy.

Housing expense/Household consumption change

Household consumption change	15%	32%	48%	3%	2%
Housing expense change	3%	7%	84%	2%	4%

■ increased　■ slightly increased　■ unchanged
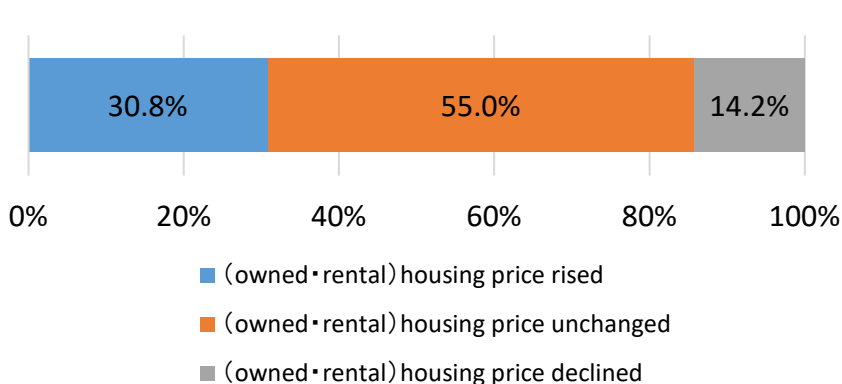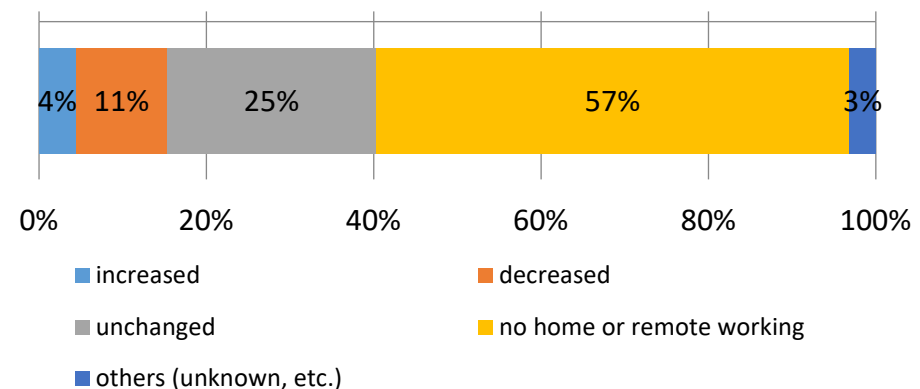■ slightly decreased　■ decreased

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2. Survey results

● housing prices change

✓ 31% housing prices had increased.

✓ 55% shows no change.

➢ 86% shows increased or remained. ➡ The real estate market conditions may show robustness.

● Remote work

✓ 57% not engage in remote work.

✓ 25% no change in remote work.

➢ Remote work may not have much impact on the commercial real estate market.

Housing prices change

30.8%	55.0%	14.2%

0% 20% 40% 60% 80% 100%

■ （owned・rental）housing price rised
■ （owned・rental）housing price unchanged
■ （owned・rental）housing price declined

Home or Remote working condition

4%	11%	25%	57%	3%

0% 20% 40% 60% 80% 100%

■ increased   ■ decreased
■ unchanged   ■ no home or remote working
■ others (unknown, etc.)

2. Survey results

● Real estate utilization costs of workplaces.

✓ 67% no change in real estate utilization costs.

✓ 24% increase > 8% decrease.

➢ Contract terms make rent adjustments difficult.
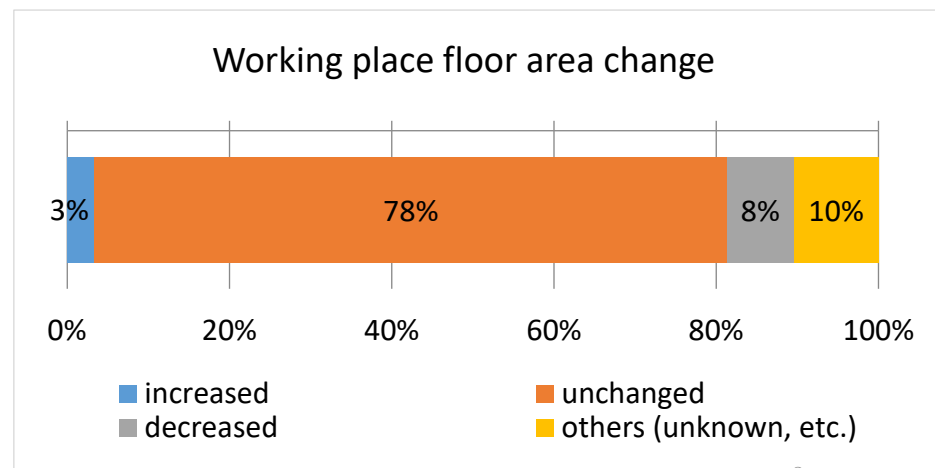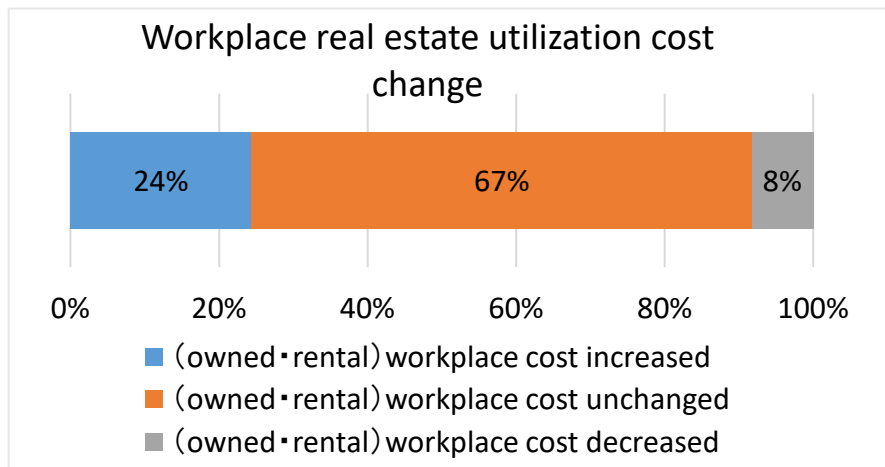
➢ Rise in prices associated with inflation affecting rents or real estate prices.

● Changes in the floor area of workplaces

✓ 78% no change in the floor area of workplaces.

➢ floor area did not increased, while real estate utilization costs increased. ➡ Commercial real estate's utilization costs rise with inflation of rent and price.

Workplace real estate utilization cost change

24%	67%	8%

0% 20% 40% 60% 80% 100%

- ■ （owned・rental）workplace cost increased
- ■ （owned・rental）workplace cost unchanged
- ■ （owned・rental）workplace cost decreased

Working place floor area change

3%	78%	8%	10%

0% 20% 40% 60% 80% 100%

- ■ increased   ■ unchanged
- ■ decreased   ■ others (unknown, etc.)

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2. Survey results

● Near future home purchase intentions

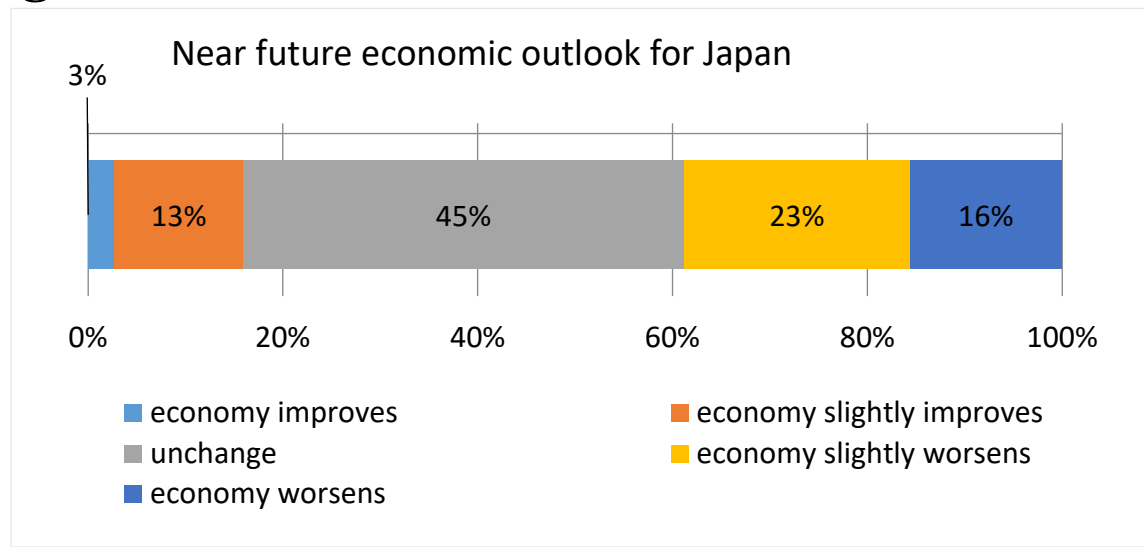✓ 80% no plan to purchase a home within the next 1-2 years. > 20% may have plan to purchase a home.

➢ No plans to purchase a home is more significant. ➡ near future housing demand may decrease.

Near future home purchase intentions

4%

12%   80%

4%

0%   20%   40%   60%   80%   100%

■ Intent to purchase (residential dwelling or investment dwelling) within 1 year

■ Intent to purchase (residential dwelling or investment dwelling) within 2 year

■ Intent to purchase when financial flexibility in permitted

■ No plans to purchase home within 1-2 years
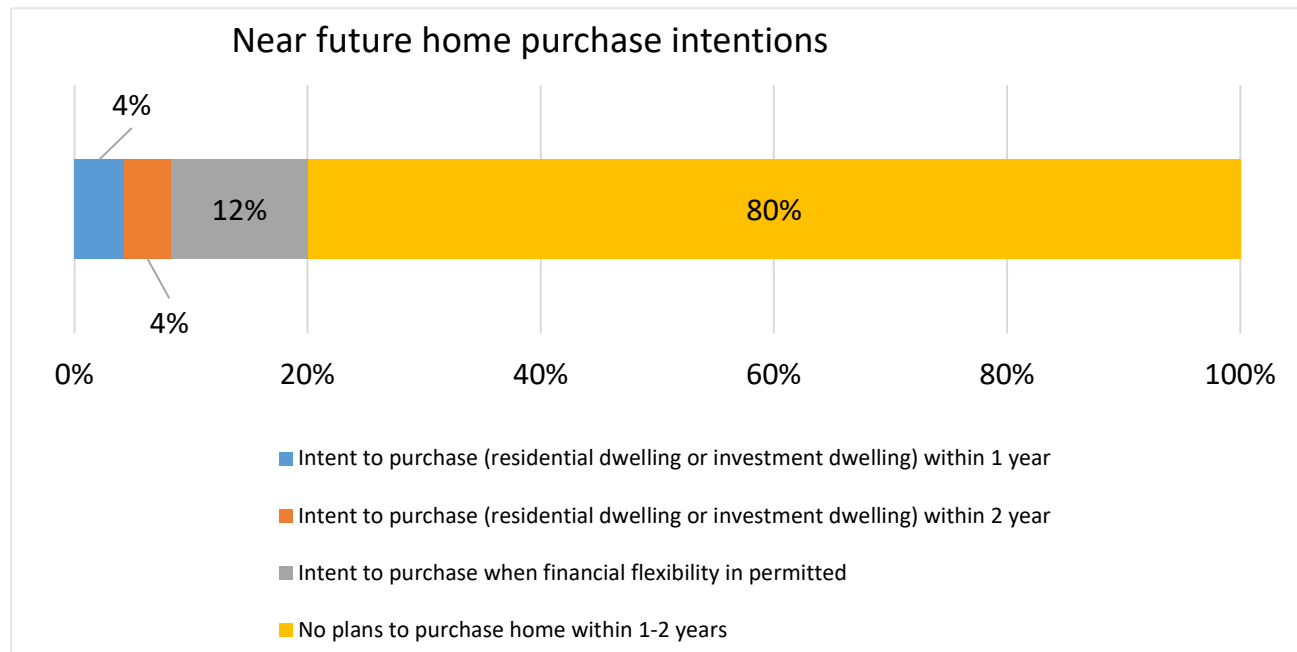
2. Survey results

● Near future economic outlook for Japan

✓ 39% expect to worsen and 45% remain unchanged.

✓ Only 16% expect improvement shortly.

➢ 84% expect maintenance or decline.➡ leading to a contraction in consumption and potentially negative affect Japan's macroeconomy in 2024.

➢ The economic outlook for Japan in 2024 is considered challenging for improvement, while the BOJ's normalization of unconventional monetary easing is undergoing.

Near future economic outlook for Japan

3%	13%	45%	23%	16%

0%   20%   40%   60%   80%   100%

■ economy improves   ■ economy slightly improves
■ unchange   ■ economy slightly worsens
■ economy worsens

3. Logistic regression Analysis

● This study analyzed the real estate market conditions and the Japan's economy using the logistic regression model with the survey data (categorical data).

✓ Dependent variable : the intention to purchase a home in the near future(Responses indicating home purchase intentions within 1-2 years or if financial flexibility were permitted).

✓ Independent variables : other items of the survey.

Table1-1 sample sizes of the dependent variable (real estate market conditions)

dependent variable	samples
Real estate market conditon not upturn(=0)	1599
Real estate market conditon upturn(=1)	401

Table1-2 descriptive statistics of the independent variables (each questions)

independent variable	dependent variable	mean	standard deviation	minimum	maximum
All	Wage(income) change prediction	0.182	0.386	0	1
	Housing price unchange	0.268	0.443	0	1
	Rental housing price increase	0.095	0.293	0	1
	Housing expenses change(increase - decrease)	2.967	0.590	1	5
	Workplace real estate rent price decrease	0.054	0.225	0	1
	Workplace real estate price increase	0.142	0.349	0	1
	Economy condition outlook	0.160	0.366	0	1

3. Logistic regression Analysis

● Analysis results

✓ Table 2 shows that the independent variables model is significant.

✓ Table 3 presents that the logistic regression model's variables are significant.

※Odds ratio: ratio between the probabilities of an event not occurring and occurring → representing the magnitude of the influence of factors affecting the dependent variable.

Table2 Likelihood ratio test of the real estate market logistic regression model

	likelihood ratio	p-value
constant term model	6.3391	0.0118
independent variables model	114.3274	P < 0.001

Table3 estimated results of the real estate market logistic regression model

independent variables	partial regression coefficient	standard deviation	odds ratio	lower bound	upper bound	p-value
Wage(income) change prediction	0.6388	0.1396	1.8942	1.4408	2.4905	P < 0.001
Rental housing price increase	0.6617	0.1754	1.9380	1.3742	2.7331	P < 0.001
Housing expenses change(increase - decrease)	-0.4252	0.1004	0.6536	0.5368	0.7958	P < 0.001
Workplace rent price decrease	1.1396	0.2127	3.1256	2.0601	4.7420	P < 0.001
Workplace property price increase	0.4617	0.1546	1.5868	1.1720	2.1484	0.0028
Economy condition outlook	0.3857	0.1507	1.4706	1.0944	1.9761	0.0105
constant	-0.5789	0.3057	0.5605	0.3079	1.0204	0.0582

3. Logistic regression Analysis

● Analysis results: logistic regression model

✓ Increasing in wage: 1.89 times increase in the intention to purchase real estate than others (no change or decrease)

✓ Increase in rental housing prices: 1.93 time (same as above).

✓ Increase in workplace real estate prices: 1.58 times (same as above).

✓ Housing expenses decrease: intention to purchase home decreases by 35% (odds ratio 0.65).

✓ Expectations of an improved economy lead to a 1.47 times (same as above).

3. Logistic regression Analysis

● Analysis results: logistic regression model

✓ Wage↑:1.89 times ↑in the intention to purchase real estate than others (no change or decrease)

✓ Rental housing prices↑: 1.93↑

✓ Workplace real estate prices↑: 1.58↑

✓ Expectations of an improved economy:1.47↑

✓ Housing expenses↓: intention to purchase real estate↓ 35% (odds ratio 0.65).

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3.Logistic regression Analysis

● Analysis results: logistic regression model

➢ Wage increases and housing expenses decrease.➡ lead to surplus funds for real estate purchases.

➢ Rental housing prices, workplace real estate prices, and positive economic outlooks. ➡ positively affecting the real estate market.

➢ Workplace real estate rent decrease may lead to an increase in the disposable companies income, resulting in wage increasing expectations for employees. ➡ potentially positively affecting the real estate market.

➢ Thus, this study implies that wage increases could mitigate concerns about economic downturns associated with policy interest rate hikes.

4. Conclusion

- In this study, a questionnaire survey was conducted in February 2024 on the real estate market conditions and macroeconomics.

- ✓ The current situation of macroeconomics, where household consumption increases with rising consumer prices but wage increases are not expected, may overlap with the normalization of unconventional monetary easing in 2024.
  ➡Potentially negatively impacting the economy of Japan in the near future.

- ✓ Through the logistic regression model, it is believed that income increases serve as factors to prevent economic downturns associated with the normalization of unconventional monetary easing.

Thank You For Your Attention.