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Plunge in New Housing Starts Means Existing Homes Market Expansion Is Key:

– Housing Start Estimates Informed by Population Trends–

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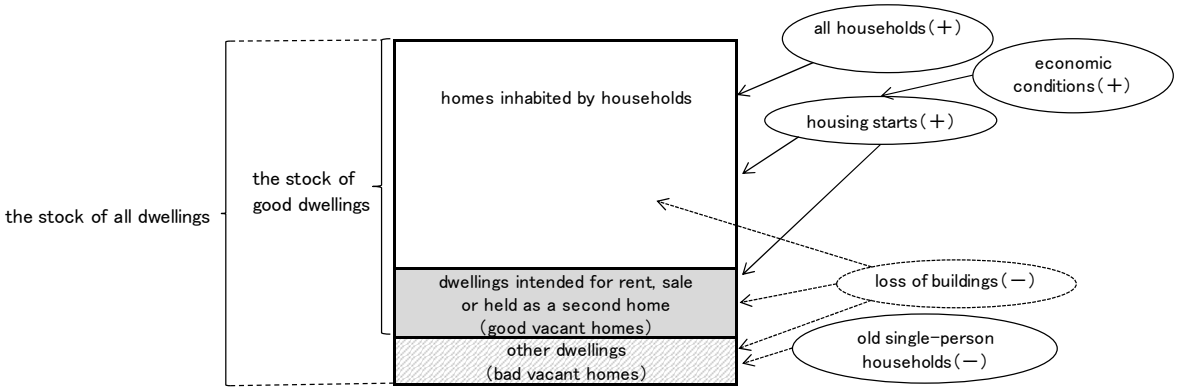
1. Estimated Housing Starts by Prefecture

Suzuki and Matsuoka (2013)[1] have developed a classification for housing stock as shown in Figure 1. The stock of all dwellings is grouped into either (1) homes inhabited by households or (2) vacant homes. The latter is further divided into (3) dwellings intended for rent, sale, or held as a second home and (4) other dwellings. Dwellings in category (3) are referred to "good vacant homes," and those in (4) are called "bad vacant homes."

Figure 1. A classification for housing stock



Source: Suzuki and Matsuoka(2013)

[1] Jun Suzuki and Hideaki Matsuoka, "Ghost Town-ka suru chiiki, akiya no katsuyo ga kadai ni: 2028-nen todofuken-betsu jutaku chakko kosu no yosoku" (Making Fuller Use of Vacant Homes to Prevent Communities from Becoming Ghost Towns: Forecasts for New Privately Owned Housing Units in 2028 by Prefecture) in Japanese, in the 39th Medium-Term Economic Forecast, 2012FY–2025FY, Japan Center for Economic Research, March 2013.

In this paper we attempt to determine whether decline in the number of working-age population and its share among the total population impact negatively on housing starts. This was done by conducting a panel estimation in which we added working-age population trends to estimation by Suzuki and Matsuoka (2013).

The periods covered were 1993–2013 and 1998–2013, the latter excluding data for years shortly before and after the Great Hanshin Earthquake of 1995. The variables used were averages for each five-year period (see Table 1).

Table 1. Variables used in the estimation

	variables	notes	expected sign
dependent	① RI	housing starts(each prefecture's)	
	② GS	the stock of good dwelling(each prefecture's)	
explanatory	③ WP	working-age population(each prefecture's)	+
	④ GDP	nominal GDP growth(nationwide)	+
	⑤ AR	share of vacant homes(each prefecture's)	−
	⑥ GV	good vacant homes／the stock of good dwelling(each prefecture's)	−
	⑦ WR	share of working-age population(each prefecture's)	+

Data Source: Ministry of Land, Infrastructure, Transport and Tourism, Ministry of Internal Affairs and Communications, Cabinet Office, government of Japan

We expect increase in prefectural working-age population—those expected to make the bulk of home purchases—to result in higher housing starts in each prefecture. We also consider higher nominal gross domestic product (GDP), a measure of business conditions in Japan as a whole, as likely to increase the number of housing starts.

Table 2 shows the panel estimate results. Rise in each prefecture's home vacancy ratio and higher shares of "good" vacant homes in the prefecture's housing stock, on the contrary, dampened housing starts. This is because higher vacancies indicate a glut in the housing supply. Most importantly, a drop in the share of the working population led to a decrease in housing starts. The panel estimate results for other predictor variables were likewise in line with expectations.

Table 2. Panel estimate results

dependent variable	RI／GS(housing starts／the stock of good dwelling)						
estimation period	1993-2013			1998-2013			
equation number	1	2	3	4	5	6	7
dlog(WP)	−0.0003***	−0.0003***		0.104***	0.118***		
GDP	0.102***	0.11***	0.065***	0.073***	0.079***	0.058***	0.062***
AR	−0.076***			−0.042***		−0.051***	
GV		−0.073***	−0.052***		−0.058***		−0.059***
WR			0.103***			0.100***	0.115***
R-squared	0.884	0.874	0.909	0.892	0.893	0.897	0.894

Note: * denotes significance at 10% level, ** denotes significance at 5% level, *** denotes significance at 1% level.

2. Using Estimation Formulas to Forecast Housing Starts

An estimate of housing starts in FY2019–23 was then made based on the above results (equation No.7). The ratio of working-age population was based on population projection (by prefecture) issued by the National Institute of Population and Social Security Research and nominal GDP growth was based on JCER's Medium-Term Economic Forecasts. Increase in the stock of

"good" vacant homes was defined as the number of housing starts minus the growth in "bad" vacant homes. The formula for the estimation model can thus be expressed as follows (where BV refers to "bad" vacancies).

$$\Delta GS_{it} = RI_{it} - \Delta BV_{it}$$

A forecast for housing starts and the stock of good vacancies can be calculated using formula (1), a variant of the above estimation model, and formula (2).

$$GS_{it} = GS_{it-1} + RI_{it} - (BV_{it} - BV_{it-1}) \quad (1)$$

$$RI_{it}/GS_{it} = \alpha_i + \beta_1 GV_{it} + \beta_2 WR_{it} + \beta_3 GDP_{it} + u_{it} \quad (2)$$

The results show that housing starts in FY2019–23 are expected to decline by over 20% in almost all prefectures, with the national average being a drop of around 30% (see Figures 2 and 3). Prefectures where the working population is expected to fall sharply will see a corresponding reduction in housing starts.

Figure 2. Forecast of housing starts in FY2019-2023

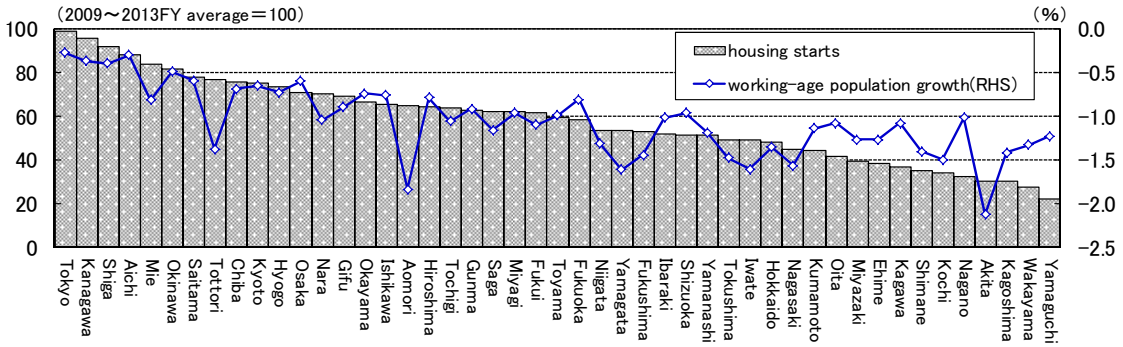
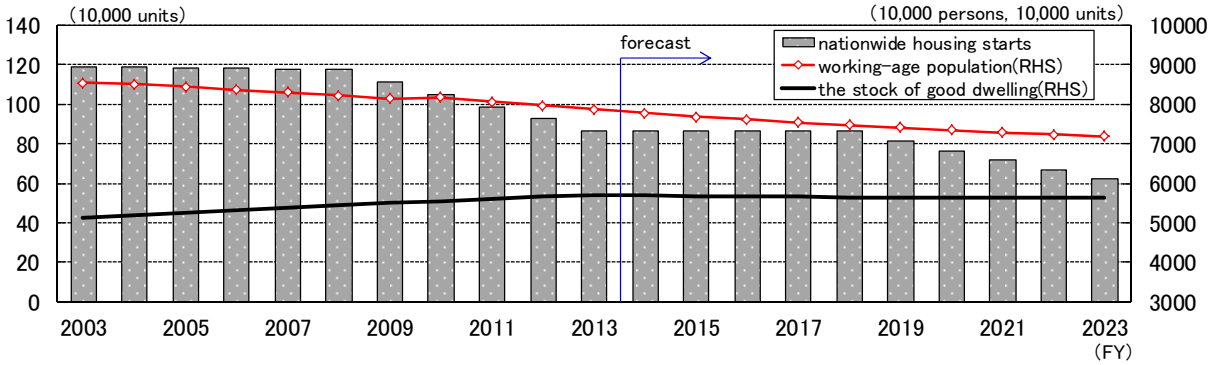


Figure 3. Forecast of nationwide housing starts in FY2014-2023



3. Measures to Boost the Mortgage Market

Given the anticipated shrinking of the new housing market, measures are needed to create new demand for home loans by boosting transactions of existing homes. The government eyes the housing market as part of its growth strategy and has outlined a policy of doubling the market for existing homes and home renovations by FY2020. A number of measures have already been implemented.

For example, in December 2013 the Ministry of Land, Infrastructure, Transport, and Tourism (MLIT) announced subsidies of between ¥1 million and ¥2 million for renovations meeting certain standards, such as protection against earthquakes or improvement of energy efficiency. The use of government funds to encourage home renovations is a positive step that should lead to such benefits as higher quality dwellings and a more active used-home market. The Japan Housing Finance Agency, meanwhile, is expected to expand its Flat 35 fixed-rate housing loan program in April 2015. The expansion will enable purchasers of existing homes to borrow funds not just to buy the home but also to renovate it at the same time—instead of having to apply for a separate loan from a private bank to finance the renovation.

A dwindling mortgage market could be a big blow for some financial institutions, since many of them have sought to make up for the prolonged low interest rates—and small margins—by increasing the number of loans. In order to maintain the demand for housing loans in the face of a shrinking population, we will need further measures to expand the existing home and home-renovation markets.

Reference Works:

Atsushi Watanabe (2014) “Flat35 kakujuu, Kinyukikan ga keikai” (Some Financial institutions are cautious about Flat 35expanding) *Nikkei Veritas* October 19, 2014

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