Estimated trading volume of existing houses in the market – a brief summary by region Reported by general incorporated association Fudosan Ryutsu Keiei Kyokai (FRK) March 2017

1. Objective and method of the study

FRK's study conducted last year to estimate the trading volume of existing houses and calculate the ratio of traded existing houses on the basis of the national scale will be conducted again this year. This time, the study will be implemented on the basis of each prefecture, while for Tokyo it will be by each ward, and 16 areas from selected cities in the Tokyo metropolitan area (4 prefectures), each ward in Yokohama city, 22 areas within the Kansai area (Osaka and Hyogo prefectures), and 14 areas within the Chukyo area (Aichi Prefecture).

2. Difference between traded volume of existing houses by Housing and Land Survey and estimate by FRK

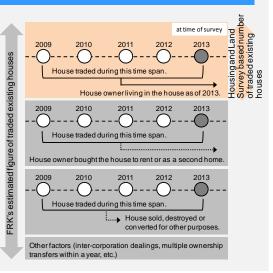
Volume of traded existing houses reported by Housing and land survey: 169,000 in 2013

A housing and land survey is conducted every 5 years, and it reflects the number of houses with residents actually living in them. In other words, this figure by the housing and land survey means the number of houses in which house buyers are actually living at the time the survey is conducted from among those houses obtained as owned houses upon relocation.

Estimated volume of traded existing houses reported by FRK: 514,000 in 2013 FRK's estimated figure of traded existing houses is calculated based on the number of houses whose ownership was transferred after trading. As the diagram to the right indicates, the number of houses with ownership transfer upon trading includes all ownership transfers, regardless of usage by owners after trading. It also includes trading

among corporations, while the housing and land survey's method does not.

O Number of traded existing house by the housing and land survey : Number of houses where buyers continue to live upon relocation after purchasing as house owners. O Number of traded existing house by FRK: Expresses the total number of traded existing houses in the market.



3. Estimation method

FRK estimation method and data used for estimated trading volume of existing houses

The estimated trading volume of existing houses is obtained by dividing the registered number of ownership transfers, regardless of personal or corporate real estate trading, by the MIC number of existing residential houses estimated based on the housing and land survey, to which is added the MIC number of existing non-residential houses⁽¹⁾ based on the summary report of fixed asset taxes.

(1) The prefecture-basis data missing from the MIC brief investigation of the fixed asset price list were obtained through an information disclosure request

FRK's estimated figure of	Number of houses whose	number of existing residential houses ₍₂₎ (Housing and land survey)
traded existing houses =	ownership was transferred × after trading	number of existing non-residential houses (Summary report of fixed asset taxes) (Housing and land survey)
The ratio of traded existing houses	Rated of traded existing	FRK's estimated figure of traded existing houses
is estimated based on the right formula.	house 0 =	FRK's estimated figure of Total number of new traded existing houses + housing starts(3)

(2) The number of existing residential houses (housing and land survey) is obtained by adding the net increment of each year calculated based upon statistical surveys of new constructions of buildings (new housing starts) and the loss of buildings by MLIT, in addition to the latest number of existing residential houses surveyed by the housing and land survey every 5 years. (3) The total number of new housing the total number of newly built residential houses (constructions of newly established residential houses—including rented houses/issued houses) from among the construction classes listed in the statistical surveys of new constructions of buildings (statistics of newly started residential housing constructions).

Intended Use categories of existing non-residential houses (End of 2014)

num	per of existing non-res	sidential ho	ouses (National totals in 20	014)	7,848,146	
	Wooden hous	es	Non-wooden hous	Total wooden and non- wooden houses		
	Office, Bank, Store	665,614	Office, Store, Department store, Bank	1,377,952	2,043,566	
	Japanese inn, Restaurant, Hotel	81,495		129,423	242,918	
s by Usag	Theater, Hospital	32,000	Hospital, Hotel	129,423	242,9	
e	Factory, Warehouse, Public bath	1,207,579	Factory, Warehouse, Market	3,273,017	4,480,596	
	Tax-exempt houses	1,081,066				

* The above table is prepared from data obtained from the summary report of fixed asset taxes of 2015, while the data of t the summary report of fixed asset taxes reflect the values as of January 1 each year. Therefore the above data are regarded as the values from the end of the previous year (2014) in this report.

* The building usage categories shown in the summary report of fixed asset taxes include usages not applicable as the subjects of registration by themselves, and usages with a small trading volume in the real estate market. For example, the number of wooden accessory structures from among the number of existing non-residential houses listed in the summary report of fixed asset taxes, is excluded here because it is generally registered as part of the main house and it is not counted as a case of registration transfer—even if it is traded along with the main house. Furthermore, wooden structure go-down style warehouses, and other simple non-wooden frame structures such as occooneries, greenhouses, stockrooms, compost houses, garages, toilets, or such buildings as power station facilities not applicable in the others category, are also excluded as wooden accessory structures.

Brief summary of statistic estimation result 1 National scale and Prefectural scale

4.National scale statistic estimation results

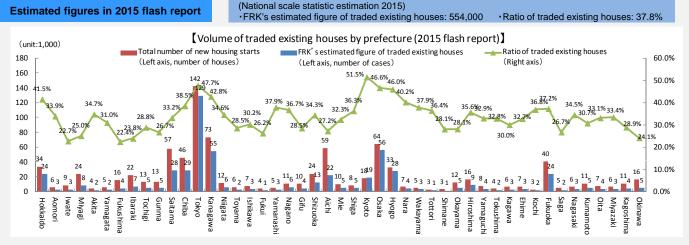
The estimated number of traded existing houses in the national scale in the 2015 flash report is 554,000 units, (up 35,000 units from the previous year) showing a 4th year of consecutive growth since 2011. The ratio of traded existing house (in the 2015 flash report) was 37.8%-a 1.0 percentage point increase from 2014, as a result of an increase in the number of traded existing houses (up 6.7 % from the previous year), exceeding the increase in the number of new housing starts (17,000 units or a 1.9 % increase from the previous year). The estimate was based on values as of January 1, 2014, as this was when the number of existing non-residential houses was made available.

	Category	Unit	Reference	2010	2011	2012	2013	2014	2015			
A	Total number of new housing starts(including houses for rent, company subsidized)	(number of houses)	Statistical surveys of new constructions of buildings	813,126	834,117	882,797	980,025	892,261	909,299	*FRK's estimated trading volume of existing houses in 2015 is a flash estimation report, made		
(Refe		(number of registration)	Statistics on number of registrations by the Ministry of Justice (MOJ)	532,383	513,444	533,506	579,455	584,753	623,488	using the ratio of residential houses from among the number of existing buildings, where the		
в	FRK's estimated figure of traded existing houses	(Number of cases)	Estimation based on the number of registrations for ownership transfer	469,562	454,398	472,686	513,977	518,676	553,657	number of existing non-residential houses uses the value for 2014 (in this report, the value taken as of		
	Ratio of tradeo (B/	36.6%	35.3%	34.9%	34.4%	36.8%	<u>37.8%</u>	January 2015 is seen as the value as of the end of 2014.)				

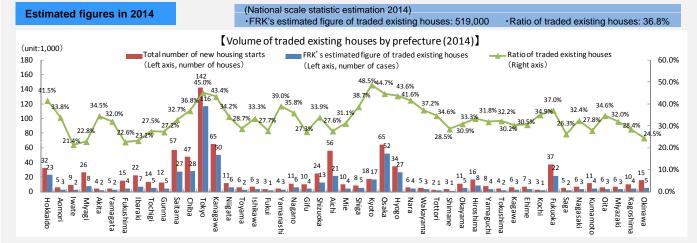
5.Prefectural scale statistic estimation results

According to the 2015 flash report on prefecture-based estimations of traded existing houses, Tokyo has the largest number at 129,000 units (up 13,000 units from the previous year), Osaka comes next with 56,000 units (up 4,000 units), then Kanagawa Prefecture with 55,000 units (up 5,000 units)

The 2015 flash report on the ratio of traded existing houses shows Kyoto as the highest with 51.5 %, up 3.0 percentage points from the previous year with Tokyo next at 47.7 %, up 2.7 percentage points.



%FRK's estimated figure of traded existing houses in 2015 is a flash estimation report, made using the ratio of residential houses from among number of existing buildings, where the number of existing non-residential houses uses the value for (in this report, the value taken as of January 2015 is seen as the value as of the end of 2014). For the number of existing residential of existing non-residential houses uses the value for (in this report houses, the value for 2013 obtained by housing and land survey was used



<Reference: 2014, 2015 the number of registrations for ownership transfer by prefecture>



Brief summary of statistic estimation result 2 Tokyo wards

6. Statistical estimate of Tokyo's 23 wards

The transition in the number of traded existing houses in Tokyo's 23 wards, surveyed by FRK, shows **a gradual increase since 2010**. In the 2015 flash estimation report, the FRK's estimated figure of traded existing houses in Tokyo's 23 wards reached 110,000 units. This is equivalent to 85% of the figure for the entire prefecture of Tokyo (129,000 units. Refer to 5.) .The ratio of traded existing houses is 50.5%, which is relatively high compared to the figure for the entire prefecture of Tokyo at 47.7% (Refer to 5.).

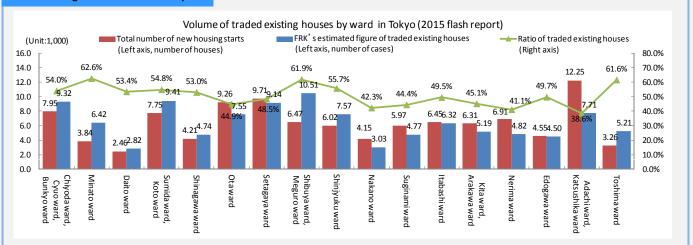
	Category	Unit	Reference	2010	2011	2012	2013	2014	2015
A	Total number of new housing starts(including houses for rent, company subsidized)	(number of houses)	Statistical surveys of new constructions of buildings	90,761	95,274	108,668	106,997	109,343	107,524
В	FRK's estimated figure of traded existing houses	(Number of cases)	Estimation based on the number of registrations for ownership transfer	77,597	77,919	87,004	100,687	97,970	<u>109,748</u>
	Ratio of traded (B/(existing house A+B))	46.1%	45.0%	44.5%	48.5%	47.3%	<u>50.5%</u>	

%FRK's estimated trading volume of existing house in 2015 is a flash estimation report, made using the ratio of residential houses from among the number of existing buildings, where the number of existing non-residential houses uses the value for 2014 (In this report, the value taken as of January 2015 is seen as the value as of the end of 2014.)

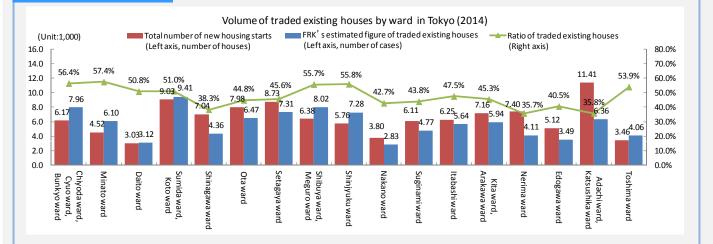
7. Statistical estimate of Tokyo by ward

According to the result of FRK's estimation for Tokyo by ward (2015 flash report), the estimated volume of traded existing houses was the largest in Setagaya Ward by 9,140 units (up 1,830 units from the previous year), followed by Shinjuku Ward by 7,570 units (up 290 units). As to the ratio of traded existing houses (2015 flash report), Minato Ward has the highest ratio at 62.6% (a 5.2 point increase from the previous year). Shinagawa Ward has the highest year-by-year increase for the ratio of traded existing houses (a 14.7 point increase).

Estimated figures in 2015 flash report



Estimated figures in 2014



※1 The data on ownership transfer registrations for the trading of buildings are gathered at branch office level of the Legal Affairs Bureau, because the unit level for gathering data is the branch office of the Bureau.

**2 The aggregated figures for data on registered fixed asset taxables disclosed by Tokyo are compiled only for taxable houses. Because of this, the number of existing non-residential houses includes the estimated number of tax-exempt houses by ward (by branch office level of the Bureau), which is calculated by dividing the number of tax-exempt houses in Tokyo's wards by the ratio of the number of ownership transfer registrations of each ward in Tokyo (by branch office level of the Bureau).
**3 Although the summary values of data for the number of non-wooden structures by building purposes can be obtained from the various wards in Tokyo, the summary value of data for the

33 Although the summary values of data for the number of non-wooden structures by building purposes can be obtained from the various wards in Tokyo, the summary value of data for the number of wooden structures by purpose can be obtained only for the 23 wards as a whole, rather than by ward. Thus, the estimation is made for accessory buildings and storehouses by ward, by dividing the data on the number of accessory buildings and storehouses in the 23 wards as a whole by the ratio of the total number of wooden buildings (non-residential), and excluding the number of existing non-residential houses for the final estimation.
34 The estimate for Tokyo, as surveyed by ward level, is calculated by first obtaining an estimate for the ratio of residential houses among the existing building stock of each area for

%4 The estimate for Tokyo, as surveyed by ward level, is calculated by first obtaining an estimate for the ratio of residential houses among the existing building stock of each area for estimation, and based on this ratio, the trading volume of existing houses (the number of registrations for ownership transfer by trading) is estimated. Because of this method, FRK's estimated number of existing houses in each area for estimation is not necessarily consistent with that of the 23 wards as a whole, as shown in Item 6 above.

*5 FRK's estimated figure of traded existing houses 2015 by prefecture is a flash estimation report, made using the ratio of residential houses from among the number of existing buildings, where the number of existing non-residential houses uses the value for 2014 (in this report, the value taken as of January 1, 2015, is seen as the value of the end of 2014.)

Brief summary of statistic estimation result 2 Tokyo wards

8. Transitions by ward in Tokyo

Rank

Area for estimation

3 Chiyoda , Cyuo , Bunkyo war

1 Shibuya , Meguro ward

5 Adachi . Katsushika waro

Sumida , Koto ward

4 Setagaya ward

6 Shinjyuku ward

7 Ota ward

8 Minato ward

9 Itabashi ward

10 Toshima ward

12 Nerima ward

13 Suginami ward

14 Shinagawa ward

15 Edogawa ward

16 Nakano ward

17 Daito ward

11 Kita , Arakawa ward

When focusing on the increase and decrease in the volume of traded existing houses by ward from the previous year, Shibuya Ward and Meguro Ward showed the biggest changes, demonstrating the activeness of the trading market for existing houses. When looking at the top group of areas by each ward exhibiting an increase in the volume of traded existing houses compared to the year 2014, Edogawa Ward experienced 1.3 times the volume of trading compared to the previous year (a 1,000-unit increase from the previous year) while Toshima Ward also showed 1.3 times the volume of trading (a 1,200-unit increase).

When focusing on the volume of traded existing houses in Adachi Ward and Katsushika Ward, those areas are in the Top 5 group in several categories; volume of traded existing houses; ratio of increase in volume of traded existing houses; total number of new housing starts; and increase and decrease in its ratio compared to the previous year, demonstrating the activeness in their trading markets.

(%

3

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< Volume of traded existing houses in2015 (flash report) and
variation ratio from 2014>

Rank

Area for estimation

1 Shibuya , Meguro ward

5 Adachi . Katsushika ward

7 Chiyoda , Cyuo , Bunkyo

2 Edogawa ward

3 Toshima ward

6 Nerima ward

9 Itabashi ward

11 Nakano ward

13 Shinjyuku ward

14 Suginami ward

16 Daito ward

15 Sumida , Koto ward

17 Kita , Arakawa ward

12 Minato ward

10 Shinagawa ward

8 Ota ward

4 Setagaya ward

(Unit: 1,000

10.5

9.4

9.3

9.1

7.7

7.6

7.5

6.4

6.3

5.2

5.2

4.8

4.8

4.7

4.5

3.0

2.8

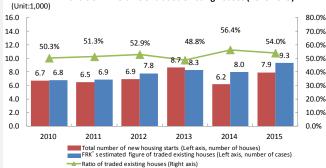
cases)

<total 2015="" and="" housing="" in="" new="" number="" of="" starts="" th="" variation<=""></total>
ratio from 2014>

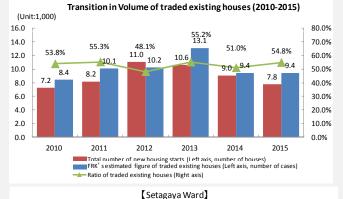
%)	Rank	Area for estimation	(Unit: 1,000 houses)		Rank	Area for estimation	(%)
31.1%	1	Adachi , Katsushika ward	12.2		1	Chiyoda , Cyuo , Bunkyo ward	28.8%
28.8%	2	Setagaya ward	9.7		2	Ota ward	16.1%
28.6%	3	Ota ward	9.3		3	Setagaya ward	11.2%
25.0%	4	Chiyoda , Cyuo , Bunkyo ward	7.9	1 [4	Nakano ward	9.2%
21.3% 17.1%	5	Sumida , Koto ward	7.8		5	Adachi , Katsushika ward	7.4%
17.1%	6	Nerima ward	6.9		6	Shinjyuku ward	4.6%
17.0%	7	Shibuya , Meguro ward	6.5		7	Itabashi ward	3.3%
16.7%	8	Itabashi ward	6.5		8	Shibuya , Meguro ward	1.4%
12.0%	9	Kita , Arakawa ward	6.3		9	Suginami ward	-2.3%
8.6%	10	Shinjyuku ward	6.0		10	Toshima ward	-5.9%
7.0%	11	Suginami ward	6.0		11	Nerima ward	-6.6%
5.2%	12	Edogawa ward	4.6	1 [12	Edogawa ward	-11.1%
4.0%	13	Shinagawa ward	4.2		13	Kita , Arakawa ward	-11.8%
0.0%	14	Nakano ward	4.1		14	Sumida , Koto ward	-14.2%
0.0%	15	Minato ward	3.8		15	Minato ward	-15.1%
-9.6%	16	Toshima ward	3.3		16	Daito ward	-18.6%
12.6%	17	Daito ward	2.5		17	Shinagawa ward	-40.2%

Latest transitions in major areas over the past 6 years

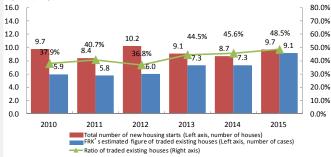
[Chiyoda Ward, Cyuo Ward, Bunkyo Ward] Transition in Volume of traded existing houses (2010-2015)



[Sumida Ward, Koto Ward]

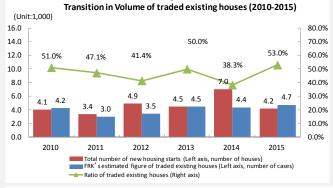


Transition in Volume of traded existing houses (2010-2015) (Unit:1,000)



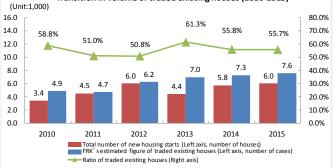
[Minato Ward] Transition in Volume of traded existing houses (2010-2015) (Unit:1,000) 16.0 80.0% 71.0% 61 2% 60 5% 57 4% 62.6% 70.0% 14.0 52.8% 12.0 60.0% 10.0 50.0% 8.0 40.0% 6.4 6.0 6.1 5.1 4.9 5.0 6.0 30.0% 4.5 45 3.8 38 3.2 4.0 20.0% 2.1 2.0 10.0% 0.0 0.0% 2010 2011 2012 2013 2014 2015 Total number of new housing starts (Left axis, number of houses) FRK's estimated figure of traded existing houses (Left axis, number of cases) Ratio of traded existing houses (Right axis)

【Shinagawa Ward】



【Shinjyuku Ward】

Transition in Volume of traded existing houses (2010-2015)



%The housing and land survey's Established number for 2013 was used for the number of existing houses.
%FRK's estimated volume of traded existing houses by Tokyo's wards in 2015 is a flash estimation report, made using the ratio of residential houses among the number of existing buildings, where the number of existing non-residential houses sets the value for 2014 (in this report, the value taken as of January 1, 2015, is seen as the value of the end of 2014.

Brief summary of statistic estimation result 3 16 areas in the Tokyo metropolitan area

9. Statistical estimate of 16 areas of the Tokyo metropolitan area excluding Tokyo's 23 wards

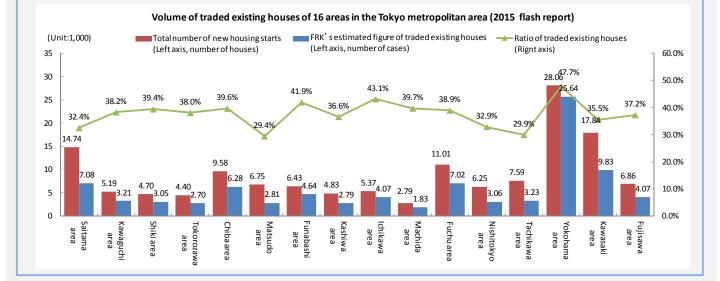
According to FRK's estimation results of 16 areas regarding traded existing houses (2015 flash report), Yokohama Area shows the largest number with 25,600 units, followed by Kawasaki Area with 9,800 units, Saitama Area with 7,100 units. As to the ratio of traded existing houses (2015 flash report), Yokohama Area has the highest ratio (47.7%), then Ichikawa Area (43.1%), Funabashi Area (41.9%). Yokohama Area accounts for around 46% of the trading volume of existing houses (25,600 units) for Kanagawa Prefecture as a whole (55,000 units, refer to 5.), which exceeds the volume of the Fukuoka Prefecture as a whole (24,000 units, refer to 5.)

The municipalities included in the subject areas are as listed in the table to the right.

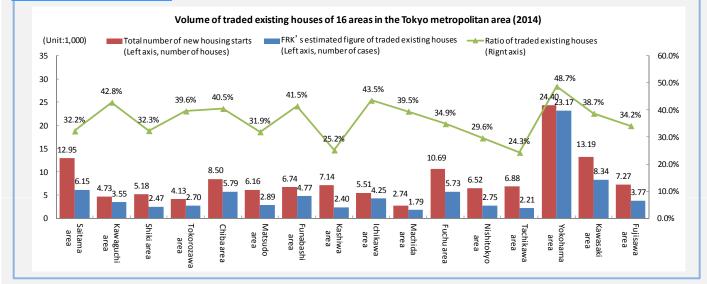
listed in the table to the right. %As to the data on the number of registrations of ownership transfer by the trading of houses, Samukawa Town is included in the Fujisawa Area because a branch office of the Legal Affairs Bureau is the minimum unit scale available for data collection. For the purpose of estimating existing house volume in a municipality, however, an estimation of the traded volume of existing houses is made based on the ratio of residential house among the number of existing buildings in city areas excluding Samukawa Town because data for the decreased number of buildings statistics survey were not available to estimate the number of existing nesidential houses during a year for which the housing and land survey does not conduct a survey. This ratio is obtained by an equation: the number of existing houses/the number of non-residential houses + the number of existing residential houses).

Area for estimation		Prefecture	Municipality
1	Saitama Area		Saitama city , Toda city , Warabi city
2	Kawaguchi Area	Saitama	Kawaguchi city
3	Shiki Area	Saltallia	Shiki city , Asaka city , Wako city , Niiza city , Fujimi city
4	Tokorozawa Area		Tokorozawa city , Sayama city , Iruma city
5	Chiba Area		Chiba city , Narashino city
6	Matsudo Area		Matsudo city , Nagareyama city
7	Funabashi Area	Chiba	Funabashi city , Yachiyo city
8	Kashiwa Area		Kashiwa city , Abiko city , Noda city
9	Ichikawa Area		Ichikawa city , Kamagaya city , Urayasu city
10	Machida Area		Machida city
11	Fuchu Area		Musashino city , Mitaka city , Fuchu city , Chofu city , Koganei city , Komae city , Tama city , Inagi city
12	Nishitokyo Area	Tokyo	Kodaira city , Higashimurayama city , Nishitokyo city , Kiyose city , Higashikurume city
13	Tachikawa Area		Tachikawa city , Akishima city , Musashimurayama city , Higashiyamato city , Kokubunji city , Hino city
14	Yokohama Area		Yokohama city
15	Kawasaki Area	Kananawa	Kawasaki city
16	Fujisawa Area	Kanagawa	Kamakura city , Fujisawa city , Chigasaki city , Samukawa town

Estimated figures in 2015 flash report



Estimated figures in 2014



%The housing and land survey's Established number for 2013 was used for the number of existing houses.

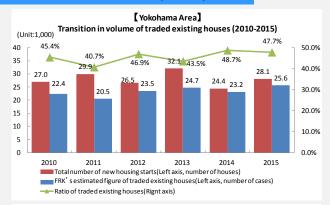
%FRK's estimated volume of traded existing houses by area in 2015 is a flash estimation report, made using the ratio of residential houses among the number of existing buildings, where the number of existing non-residential houses uses the value for 2014 (in this report, the value taken as of January 1, 2015, is seen as the value of the end of 2014.

Brief summary of statistic estimation result 3 16 areas in the Tokyo metropolitan area

10. Trends in significant locations in 16 areas in the Tokyo metropolitan area

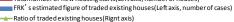
The top group in the trading volume of existing houses in the 16 areas of the Tokyo metropolitan area are Yokohama Area, Kawasaki Area, Saitama Area, Chiba Area and Fuchu Area. Yokohama Area, Ichikawa Area, Funabashi Area, Machida Area and Chiba Area became the top group for the ratio of traded existing houses. When focusing on the transition of the ratio of traded existing houses, the following areas of Yokohama Area, Kawasaki Area and Chiba Area show a decrease in the ratio as compared to 2014, because the increase in the total number of new housing starts exceeded the number of the volume of traded existing houses. In addition, the ratio of traded existing houses increased from 2014 in Saitama Area and Fuchu Area because the increase in the volume of traded existing houses exceeded the total number of new housing starts.

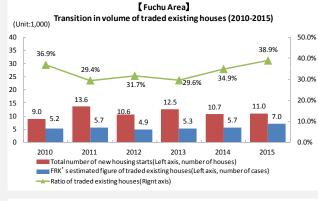
Latest transition over the past 6 years



Saitama Area

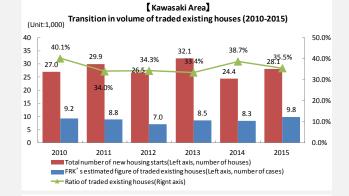


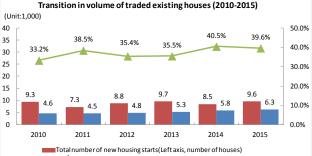




Funabashi Area

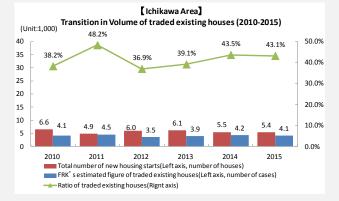




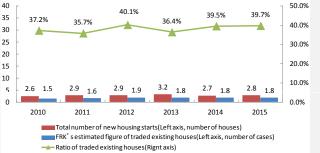


Chiba Area

FRK's estimated figure of traded existing houses(Left axis, number of cases)
Tatio of traded existing houses(Rignt axis)



[Machida Area] Transition in volume of traded existing houses (2010-2015) (Unit:1,000)



*The housing and land survey's Established number for 2013 was used for the number of existing houses.

FRK's estimated volume of traded existing houses by area in 2015 is a flash estimation report, made using the ratio of residential houses among the number of existing buildings, where the

number of existing non-residential houses uses the value for 2014 (in this report, the value taken as of January 1, 2015, is seen as the value of the end of 2014. The traded volume of existing houses and new housing starts in Fuchu area in 2014 and 2015 includes those for Tama City and Inagi City, which had been managed by the discontinued Tama Branch Office of the Legal Affairs Bureau.

Brief summary of statistic estimation result 4 Yokohama City and wards

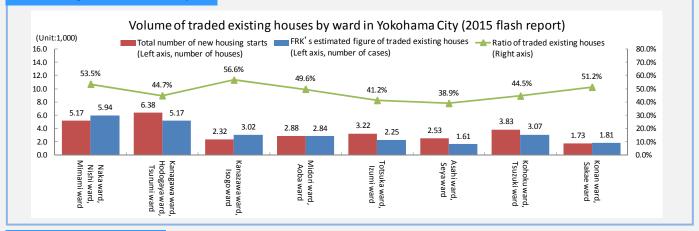
11. Statistical estimate of Yokohama City and wards

This year's estimation was made for each ward based on the trading volume of existing houses, particularly in Yokohama City which had a large traded volume among the estimations of traded volume of existing houses in 16 Tokyo metropolitan areas (Tokyo Prefecture and 3 prefectures). In the 2015 estimation, the results show that Naka Ward, Nishi Ward and Minami Ward had the largest volume with 5,940 units; followed by Kanagawa Ward, Hodogaya Ward and Tsurumi Ward (5,170 units); then Kohoku Ward and Tsuruki Ward (3,070 units). This means that the traded volume is relatively high in areas with convenient access to the center of Tokyo. These areas also ranked as the top 3 regarding the number of new housing starts.

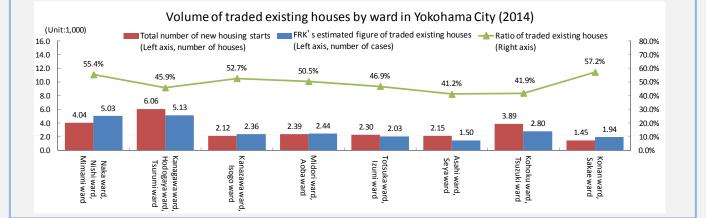
When looking at the data by area, there are multiple areas where the volume of traded existing houses exceeding the total number of new housing starts. According to the 2015 flash report, Kanazawa and Isogo wards have the highest ratio of traded existing houses at 56.6% followed by Naka, Nishi and Minami wards at 53.5%; then Konan and Sakae wards at 51.2%. All these areas exceed the national average ratio of traded existing houses (37.8%, refer to 4.), meaning that those areas have a relatively high share of trading for existing houses.

When seeing the transition of the traded volume of existing houses (in the 2015 flash report) concerning the top 3 areas, Naka, Nishi and Minami wards as well as Kanagawa, Hodogaya and Tsurumi wards have been almost consistent between the latest volume of new housing starts and the variation in the volume of traded existing houses, indicating the market for trading existing houses is driven by the development in these areas.

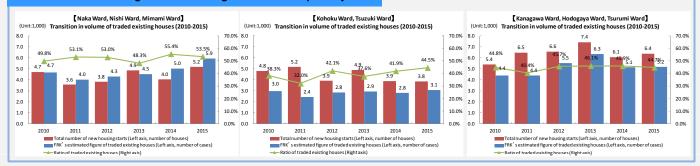
Estimated figures in 2015 flash report



Estimated figures in 2014



Latest transitions in high-volume trading areas over the past 6 years



%1 The data on ownership transfer registrations for the trading of buildings are gathered at branch office level of the Legal Affairs Bureau, because the unit level for gathering data is the branch office of the Bureau.

※2 The aggregated figures for data on registered fixed asset taxables disclosed by Yokohama City are compiled only for taxable houses. Because of this, the number of existing non-residential houses includes the estimated number of tax-exempt houses by ward (by branch office level of the Bureau), which is calculated by dividing the number of tax-exempt houses in Kanagawa Prefecture as a whole by the ratio of the number of ansfer registrations of each ward in Yokohama City.

**3 The estimate for Yokohama City, as surveyed by ward level, is calculated by first obtaining an estimate for the ratio of residential houses among the existing building stock of each area for estimation, and based on this ratio, the trading volume of existing houses (the number of registrations for ownership transfer by trading) is estimated. Because of this method, FRK's estimated figure of traded existing houses in each area for estimation is not necessarily consistent with that of Yokohama City as a whole, as shown in Item 9 above.

%5 FRK's estimated volume of traded existing houses by area in 2015 is a flash estimation report, made using the ratio of residential houses among the number of existing buildings, where the number of existing non-residential houses uses the value for 2014 (in this report, the value taken as of January 1, 2015, is seen as the value of the end of 2014.

Brief summary of statistic estimation result 5 22 areas in the Kansai area

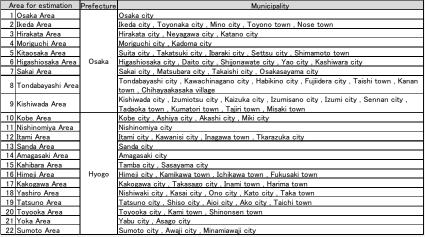
12.Estimated results in 22 Kansai areas (Osaka, Hyogo prefectures)

The estimate for the trading volume of existing houses was compiled by dividing the Kansai area (Osaka and Hyogo prefectures) into 22 areas. According to the estimated results (2015 flash report) of FRK's estimated figure of traded existing houses, Osaka Area had the largest trading volume with 24,500 units, followed by Kobe Area with 14,800 units, then Kitaosaka Area with 5,100 units. In terms of the ratio of traded existing houses, Higashiosaka Area had the highest ratio at 57.3%, followed by Hirakata Area at 55.3%, then Ikeda Area at 54.7%. The volume of traded existing houses in Osaka Area slightly exceeds the volume of Fukuoka Prefecture, and Kobe Area slightly exceeds the volume of Shizuoka Prefecture.

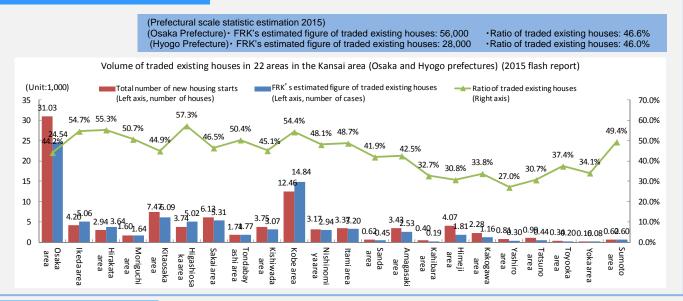
%The municipalities included in the subject area for estimation are as listed in the table on the right.

**As to the data on the number of registrations of ownership transfer by the trading of houses, towns and villages are included in multiple areas because a branch office of the Legal Affairs Bureau is the minimum unit scale available for data collection. For the purpose of estimating existing house volume in those municipalities, however, estimation of the traded volume of existing houses is made based on the ratio of residential houses among the number of existing buildings in city areas by excluding those towns and villages, because data for the decreased number of buildings statistic survey were not available for the time to estimate the number of existing residential houses during a year in which housing and land survey does not conduct a survey. This ratio is obtained by an equation: the number of existing houses/(the number of existing non-residential houses + the number of existing residential houses).

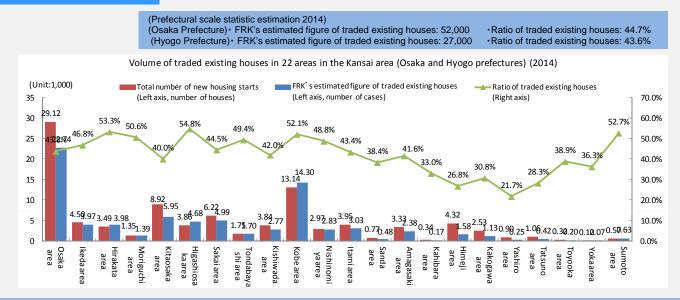
number of existing residential houses). %As for Osaka Area and Kobe Area, the estimate was prepared based on the table on the right since summary documents of fixed asset taxes by ward were not available although there are multiple branch offices of the Legal Affairs Bureau in each of the cities.



Estimated figures in 2015 flash report



Estimated figures in 2014



%The housing and land survey's Established number for 2013 was used for the number of existing houses

**FRK's estimated volume of traded existing houses by Tokyo's wards in 2015 is a flash estimation report, made using the ratio of residential houses among the number of existing buildings, where the number of existing non-residential houses uses the value for 2014 (in this report, the value taken as of January 1, 2015, is seen as the value of the end of 2014.

Brief summary of statistic estimation results 5 22 areas in the Kansai area

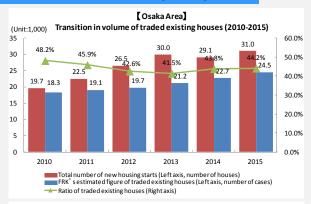
13. Transitions in trading volume in significant areas

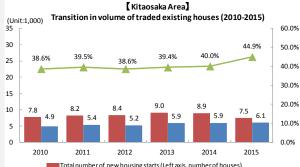
Osaka Area, Kobe Area, Kitaosaka Area, Sakai Area, Ikeda Area, and Higashiosaka Area are the top groups in the volume of traded existing houses, indicating that Osaka Area, Kobe Area and neighboring cities with convenient accesses to Osaka Area show a large trading volume.

Looking at the latest transition in the volume of traded existing houses in Osaka Area with the largest trading volume, the total number of new housing starts is increasing, while the volume of traded existing houses is also gradually increasing. The ratio of traded existing houses in 2015 (flash report) is 44.2%, which is 6.4 percentage points higher than that of the national figure at 37.8% (Refer to 4.), indicating that the market for trading existing houses has matured, and the market is expanding.

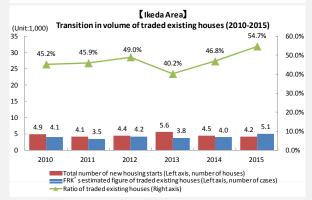
Looking at the transition in Kobe Area, the total number of new housing starts has been slightly increasing, but the volume of traded existing houses has remained almost unchanged. As to the ratio of traded existing houses, the ratio in 2015 (flash report) is 54.4%, about 8.4% higher than that for Hyogo Prefecture as a whole (46.0%. Refer to 5). A ratio above 50% implies the trading of existing houses in this area has been stable.

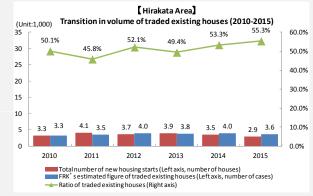
Latest transitions over the past 6 years

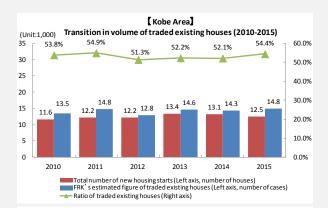




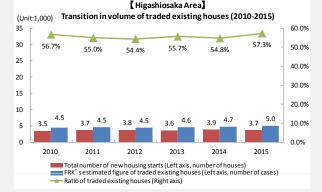
Total number of new housing starts (Left axis, number of houses) FRK's estimated figure of traded existing houses (Left axis, number of cases) Ratio of traded existing houses (Right axis)



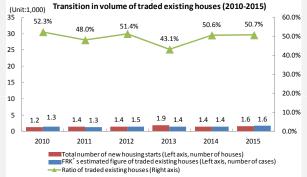




Sakai Area Transition in volume of traded existing houses (2010-2015) (Unit:1,000) 60.0% 30 46.5% 45.5% 44.5% 50.0% 43.0% 44.4% 40.2% 25 40.0% 20 30.0% 15 20.0% 10 7.5 7.2 6.1 6.2 6.1 53 5 / 5.0 10.0% 5 0 0.0% 2010 2011 2012 2013 2014 2015 Total number of new housing starts (Left axis, number of houses) FRK's sestimated figure of traded existing houses (Left axis, number of cases) Ratio of traded existing houses (Right axis)



Moriguchi Area



%The housing and land survey's Established number for 2013 was used for the number of existing houses

** FRK's estimated volume of traded existing houses by Tokyo's wards in 2015 is a flash estimation report, made using the ratio of residential houses among the number of existing buildings, where the number of existing non-residential houses uses the value for 2014 (in this report, the value taken as of January 1, 2015, is seen as the value of the end of 2014.

Brief summary of statistic estimation result 6 14 areas in the Chukyo area

14. Estimated results in 14 areas in the Chukyo area (Aichi Prefecture)

Estimate of the trading volume of existing houses was compiled by dividing the Chukyo area (Aichi Prefecture) into 14 areas.

According to the estimated results (2015 flash report) of the volume of traded existing houses including each ward in Nagoya City, Chuo Area, Atsuta Area, Meito Area had a large trading volume. The total trading volume in those 3 areas is12,300 units, accounting for more than 50% of the volume of traded existing houses in Aichi Prefecture as a whole (22,000 units. Refer to 5.).

Looking at the ratio (2015 flash report) of traded existing houses, Meito Area is the highest at 38.8%, followed by Ichinomiya Area at 33.3%, then Atsuta Area at 30.8%, while that of the other areas turned out to be less than 30%. This tells us that there are many areas with a low share of existing houses, when compared with the 2015 estimate (flash report) of the national average in the ratio of traded existing houses at 37.8% (Refer to 4.).

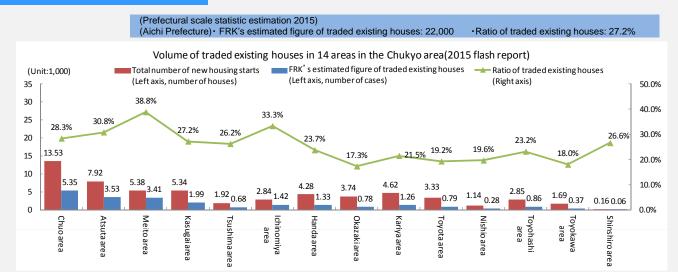
**The municipalities included in the subject areas are as listed in the table to the right.
**As to the data on the number of registrations of ownership transfer by the trading of houses, towns and villages are included in multiple areas because a branch office of the Legal Affairs Bureau is the minimum unit scale available for data collection. For the purpose of estimating existing houses volume in those municipalities, however, estimation of the traded volume of existing houses is made based on the ratio of residential houses among the number of existing buildings in city areas excluding those in towns and villages, because data for the decreased number of buildings statistic survey were not available for the time to estimate the number of existing residential houses during a year in which housing and land survey does not conduct a survey. This ratio is obtained by an equation: the number of existing residential houses + the number of existing residential houses).

**The aggregated figures on data for registered fixed asset taxables disclosed by Nagoya City is compiled only for taxable houses. Because of this, the number of existing non-residential houses includes the estimated number of tax-exempt houses by ward (by each branch office of the Legal Affairs Bureau), which is calculated by dividing the number data for tax-exempt houses in Aichi Prefecture as a whole by the ratio of the number of ownership transfer registrations of each ward in Nagoya City (by each branch office of the Legal Affairs Bureau).

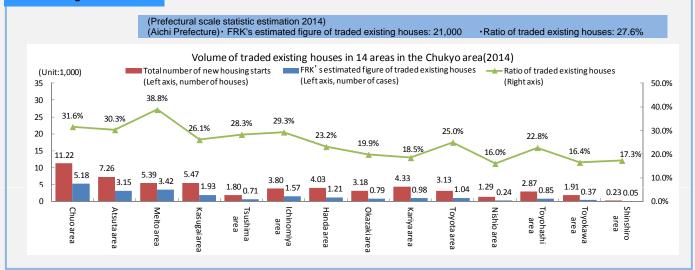
We stimate for Nagoya City, surveyed by ward level, is calculated by first obtaining an estimate for the ratio of residential houses among existing building stock of each area for estimation, and based on this ratio, the trading volume of the existing houses (the number of registrations for ownership transfer by trading) is estimated. Because of this method, FRK's estimated number of traded existing house in each area for estimation is not necessarily consistent with that of Nagoya City as a whole.

Estimated figures in 2015 flash report

A	rea for estimation	Prefecture	Municipality
1	Chuo Area		Nagoya city(Naka ward , Higashi ward , Kita ward , Nakamura ward , Chikusa ward , Showa ward) , Toyoyama town , Kiyosu city , Kitanagoya city
2	Atsuta Area		Nagoya city(Atsuta ward , Minami ward , Nkagawa ward , Minato ward , Mizuho ward , Midori ward) , Toyoake city
3	Meito Area		Nagoya city(Meito ward , Moriyama ward , Tenpaku ward) , Nisshin city , Nagakute city , Togo town
4	Kasugai Area		Kasugai city , Seto city , Inuyama City , Komaki city , Owariasahi city , Okuchi town , Fuso town
5	Tsushima Area		Tsushima city , Aisai city , Yatomi city , Ama city , Kanie town , Tobishima village , Oharu town
6	Ichinomiya Area	Aichi	Ichinomiya city , Inazawa city , Konan city , Iwakura city
7	Handa Area		Handa city , Tokoname city , Obu city , Tokai city , Chita city , Agui town , Taketoyo town , Minamichita town , Mihama town , Higashiura town
8	Okazaki Area		Okazaki city , Kota town
9	Kariya Area		Kariya city , Chiryu city , Anjo city , Hekinan city , Takahama city
10	Toyota Area		Toyota city , Miyoshi city
11	Nishio Area		Nishio city
12	Toyohashi Area		Toyohasi city , Tahara city
13	Toyokawa Area		Toyokawa city . Gamagori city
14	Shinshiro Area		Shinshiro city , Shitara town , Toei town , Toyone village



Estimated figures in 2014



%The housing and land survey's Established number for 2013 was used for the number of existing houses.

%FRK's estimated volume of traded existing houses by Tokyo's wards in 2015 is a flash estimation report, made using the ratio of residential houses among the number of existing buildings, where the number of existing non-residential houses uses the value for 2014 (in this report, the value taken as of January 1, 2015, is seen as the value of the end of 2014.

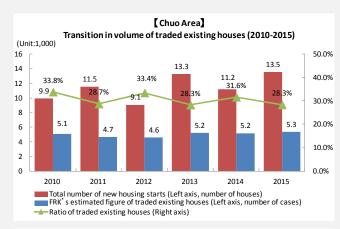
15. Transition of trading volume in significant areas

Here, the focus is on the latest transition in areas with a large trading volume. Chuo Area, which has the largest volume of traded existing houses, shows a significantly fluctuation in the total number of new housing starts, whereas the volume of traded existing houses is almost unchanged.

As to 2015 (by flash report) ratio of traded existing houses in 3 areas including Nagoya City, Meito Area is at 38.8% and is the highest, although that is lower than that of Tokyo by ward which is 50.5% (Refer to 6.), and Yokohama Area at 47.7% (Refer to 9.), and Osaka Area at 44.2% (Refer to 12.), showing the low trading share of the existing houses compared to major areas in other metropolitan areas.

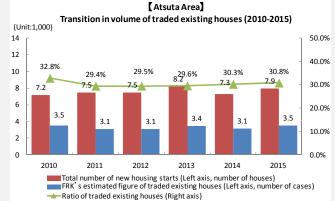
Looking at the 2015 (in flash report) volume of traded existing houses in areas other than Nagoya City, Kasugai Area has the largest trading volume with 2,000 units, and Ichinomiya Area with 1,400 units, about 30% that of Chuo Area. The 2015 (in flash report) ratio of the traded existing houses of Kasugai Area is at 33.3% and Ichinomiya Area is at 33.3%. The ratio of traded existing houses in Ichinomiya Area has been increasing since 2014, but this is due to the decrease in total number of new housing starts whereas the volume of traded existing houses remains almost unchanged.

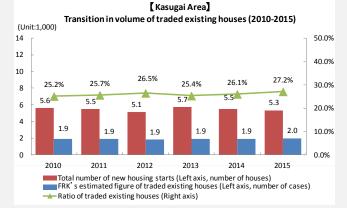
Latest transitions in areas where the trading volume of existing houses is significant over the past 6 years



[Meito Area] Transition in volume of traded existing houses (2010-2015) (Unit:1,000) 14 50.0% 38.8% 38.8% 12 35.8% 40.0% 10 31.3% 31.4% 29.0% 30.0% 8 6.1 6.1 6.1 5.4 5.4 6 4.9 20.0% 34 34 4 2.8 2.5 10.0% 2 0 0.0% 2010 2011 2012 2013 2014 2015 Total number of new housing starts (Left axis, number of houses) FRK's estimated figure of traded existing houses (Left axis, number of cases) Ratio of traded existing houses (Right axis)

[Ichinomiya Area] Transition in volume of traded existing houses (2010-2015) (Unit:1.000) 14 50.0% 12 40.0% 33.3% 10 29.3% 25.0% 30.0% 8 22.4% 21.4% 19.9% 6 4.8 4.8 4.6 20.0% A 6 3.8 4 28 10.0% 1.3 1.6 1.6 1.3 2 1.1 14 ٥ 0.0% 2010 2011 2012 2013 2014 2015 Total number of new housing starts (Left axis, number of houses) FRK's estimated figure of traded existing houses (Left axis, number of cases) Ratio of traded existing houses (Right axis)





[Handa Area] Transition in volume of traded existing houses (2010-2015) (Unit:1.000) 14 50.0% 12 40.0% 10 30.0% 8 23 7% 23.2% 21.6% 19.0% 18.0% 5.2^{18.2%} 6 4.9 20.0% 4 0 4.3 4 10.0% 13 1.3 2 1.1 1.2 12 10 0 0.0% 2015 2010 2011 2012 2013 2014 Total number of new housing starts (Left axis, number of houses) FRK's sestimated figure of traded existing houses (Left axis, number of cases) Ratio of traded existing houses (Right axis)

%The housing and land survey's Established number for 2013 was used for the number of existing houses.

%FRK's estimated volume of traded existing houses by Tokyo's wards in 2015 is a flash estimation report, made using the ratio of residential houses among the number of existing buildings, where the number of existing non-residential houses uses the value for 2014 (in this report, the value taken as of January 1, 2015, is seen as the value of the end of 2014.