

# Estimated trading volume of existing houses in the market – a brief summary by region Reported by the association of real estate agents of Japan (Fudosan Ryutsu Keiei Kyokai or FRK) November 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).

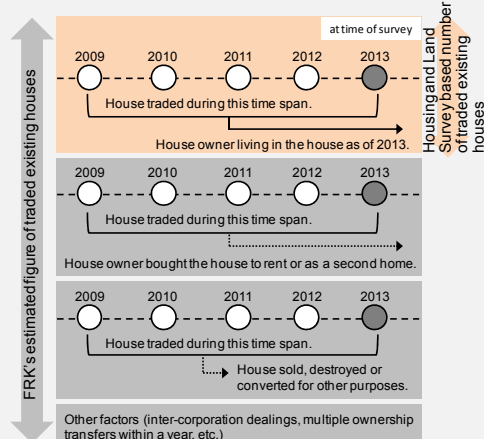
## 2. Difference between traded volume of existing houses by the Housing and Land Survey and estimate by FRK

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

The housing and land survey is conducted every five years, and it reflects the number of houses with residents actually living in them at the time of the survey from among those houses obtained as owned houses upon relocation.

### Estimated volume of traded existing houses reported by FRK: 514,000 in 2013

This figure is calculated based on the number of houses whose ownership was transferred after trading. As the diagram on the right indicates, the number of such houses 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.



- Number of traded existing houses by the housing and land survey: Number of houses where buyers continue to live upon relocation after purchasing as house owners.
- Number of traded existing houses 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 Ministry of Internal Affairs and Communications (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<sup>(1)</sup> 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

$$\text{FRK's estimated figure of traded existing houses} = \frac{\text{Number of houses whose ownership was transferred after trading}}{\text{number of existing residential houses}_{(2)} \text{ (Housing and land survey)}} \times \frac{\text{number of existing non-residential houses (Summary report of fixed asset taxes)} + \text{number of existing residential houses (Housing and land survey)}}{\text{FRK's estimated figure of traded existing houses} + \text{Total number of new housing starts}_{(3)}}$$

The ratio of traded existing houses is estimated based on the right formula.

(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 Ministry of Land, Infrastructure, Transport and Tourism (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 starts is 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 2015)

(unit: No. of building unit)

Number of existing non-residential houses (National totals in 2015)						7,829,337
Wooden houses			Non-wooden houses		Total wooden and non-wooden houses	
Items by Usage	Office, Bank, Store	667,561	Office, Store, Department store, Bank	1,380,036	2,047,597	
	Japanese inn, Restaurant, Hotel	80,509	Hospital, Hotel	129,372	242,279	
	Theater, Hospital	32,398				
	Factory, Warehouse, Public bath	1,166,694	Factory, Warehouse, Market	3,289,033	4,455,727	
	Tax-exempt houses				1,083,734	

\* The above table is prepared from data obtained from the summary report of fixed asset taxes of 2016, while the data of 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 (2015) 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 cococoneries, 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 on the national scale in the 2016 flash report is 579,000 units (up 24,000 units from the previous year), showing a **5<sup>th</sup> year of consecutive growth** since 2011. The ratio of traded existing houses (in the 2016 flash report) was 37.4%—a 0.5 percentage point decrease from 2015, as a result of an increase in the number of new housing starts (58,000 units, or a 6.4% increase from the previous year), exceeding the increase in the number of traded existing houses (up 4.3 % from the previous year). The estimate was based on values for 2015 (as of January 1, 2016), as this was when the number of existing non-residential houses was made available.

Category	Unit	Reference	2011	2012	2013	2014	2015	2016
A	Total number of new housing starts (including houses for rent, company subsidized)	Statistical surveys of new constructions of buildings	834,117	882,797	980,025	892,261	909,299	967,237
(Reference)	Number of registrations for ownership transfer	Statistics on number of registrations by the Ministry of Justice (MOJ)	513,444	533,506	579,455	584,753	623,488	650,485
B	FRK's estimated figure of traded existing houses	Estimation based on the number of registrations for ownership transfer	454,398	472,686	513,977	518,676	554,281	<u>578,932</u>
Ratio of traded existing houses (B/(A+B))			35.3%	34.9%	34.4%	36.8%	37.9%	<u>37.4%</u>

\*FRK's estimated trading volume of existing houses in 2016 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 2015 (in this report, the value taken as of January 1, 2016 is seen as the value as of the end of 2015.)

### 5. Prefectural scale statistic estimation results

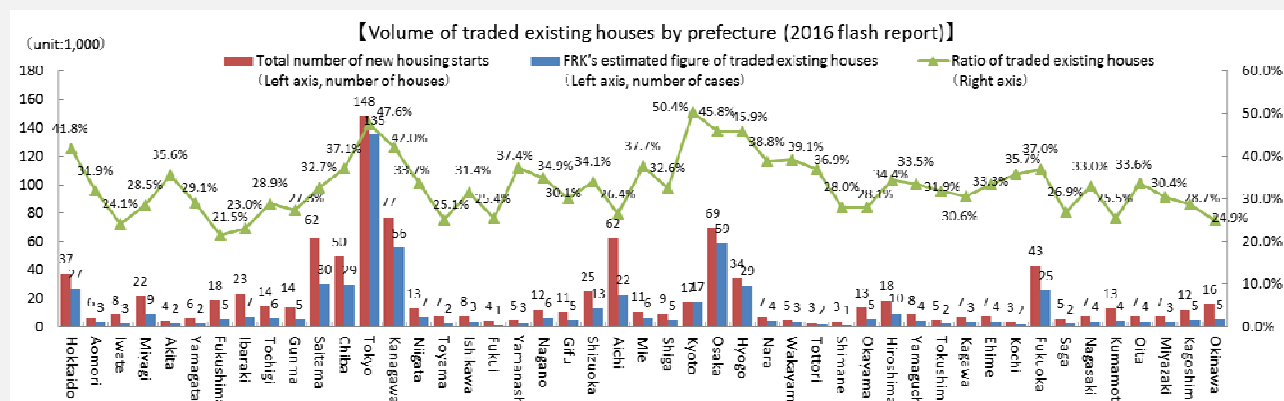
According to the 2016 flash report on prefecture-based estimations of traded existing houses, Tokyo has the largest number at 135,000 units (up 6,000 units from the previous year), Osaka comes next with 59,000 units (up 3,000 units), then Kanagawa Prefecture with 56,000 units (up 1,000 units).

The 2016 flash report on the ratio of traded existing houses shows Kyoto as the highest with 50.4% (down 1.1 percentage points from the previous year), with Tokyo next at 47.6% (down 0.1 percentage points).

#### <Estimated figures in 2016 flash report>

(National scale statistic estimation 2016)

• FRK's estimated figure of traded existing houses: 579,000 • Ratio of traded existing houses: 37.4%

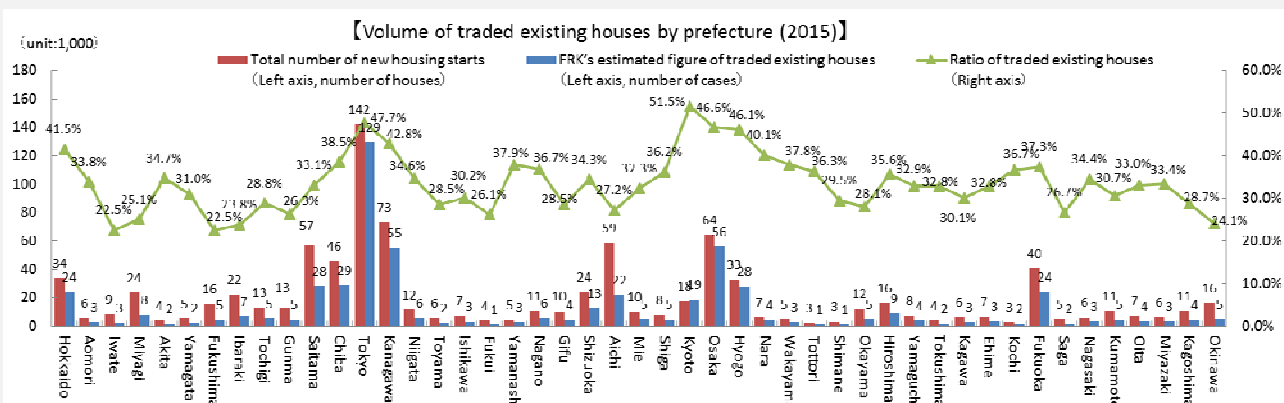


※FRK's estimated figure of traded existing houses in 2016 is a flash estimation report, made using the ratio of residential houses from among number of existing buildings, where the number of existing non-residential houses uses the value for (in this report, the value taken as of January 1, 2016 is seen as the value as of the end of 2015). For the number of existing residential houses, the value for 2013 obtained by housing and land survey was used.

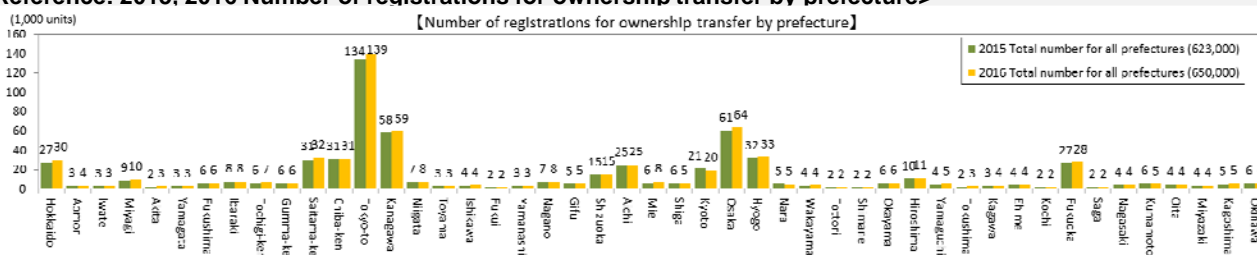
#### <Estimated figures in 2015>

(National scale statistic estimation 2015)

• FRK's estimated figure of traded existing houses: 554,000 • Ratio of traded existing houses: 37.9%



#### <Reference: 2015, 2016 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 2011. In the 2016 flash estimation report, the FRK's estimated figure of traded existing houses in Tokyo's 23 wards reached 114,000 units. This is equivalent to 84% of the figure for the entire prefecture of Tokyo (135,000 units. Refer to 5.). The ratio of traded existing houses is 49.5%, which is slightly high compared to the figure for the entire prefecture of Tokyo at 47.6% (Refer to 5.).

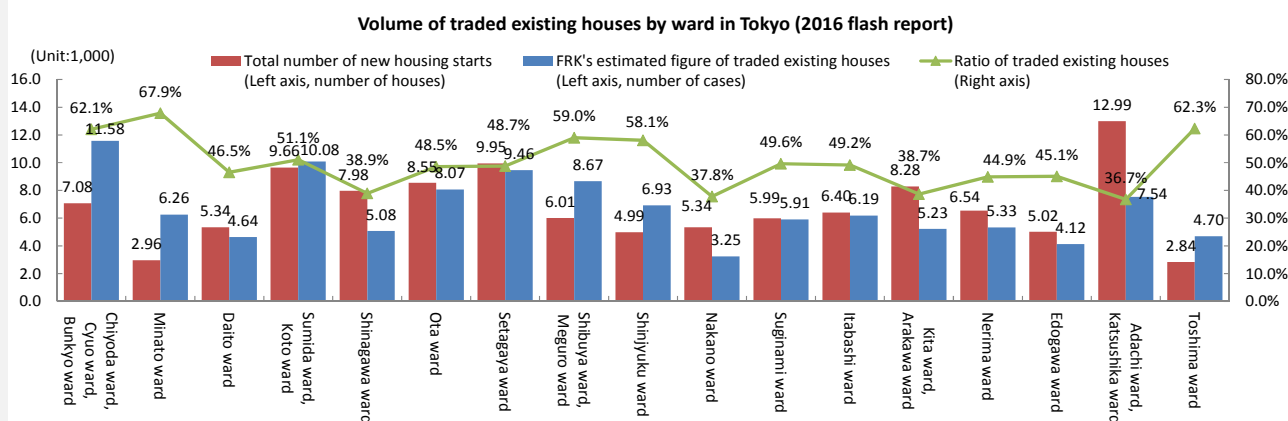
Category	Unit	Reference	2011	2012	2013	2014	2015	2016
A	Total number of new housing starts (including houses for rent, company subsidized)	Statistical surveys of new constructions of buildings	95,274	108,668	106,997	109,343	107,524	115,926
B	FRK's estimated figure of traded existing houses	Estimation based on the number of registrations for ownership transfer	77,919	87,004	100,687	97,970	109,861	<u>113,825</u>
Ratio of traded existing houses (B/(A+B))			45.0%	44.5%	48.5%	47.3%	50.5%	<u>49.5%</u>

\*FRK's estimated trading volume of existing houses in 2016 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 2015 (in this report, the value taken as of January 1, 2016 is seen as the value as of the end of 2015.)

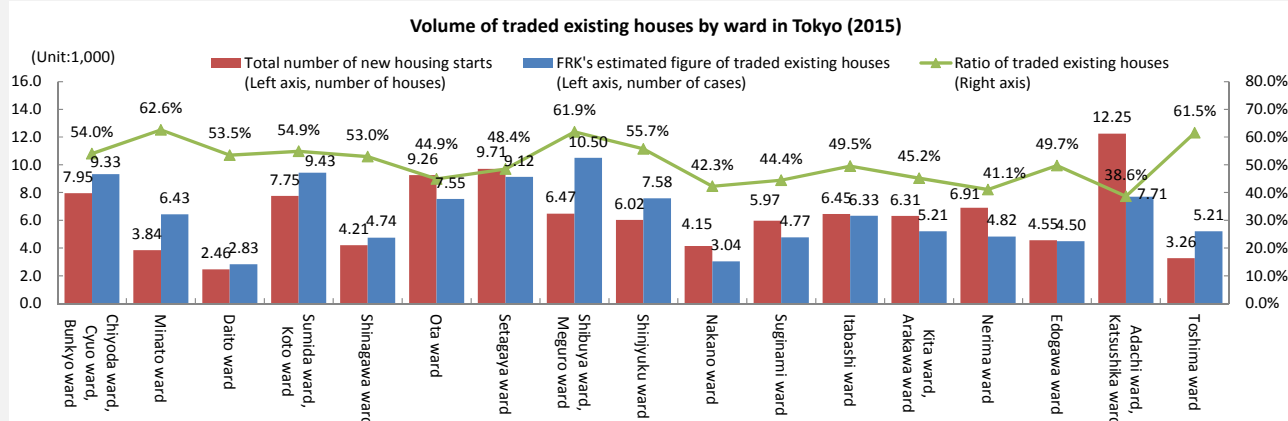
### 7. Statistical estimate of Tokyo by ward (2016 flash estimation values)

According to the result of FRK's estimation for Tokyo by ward (2016 flash report), the estimated volume of traded existing houses was the largest in Setagaya Ward as with last year at 9,460 units (up 340 units from the previous year), followed by Ota Ward at 8,070 units (up 520 units). As to the ratio of traded existing houses (2016 flash report), Minato Ward has the highest ratio at 67.9% (a 5.3 point increase from the previous year).

#### Estimated figures in 2016 flash report



#### Estimated figures in 2015



- ※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 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.
- ※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 2016 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 2015 (in this report, the value taken as of January 1, 2016, is seen as the value as of the end of 2015.)

## Brief summary of statistic estimation result 2 — Tokyo wards

### 8. Transitions by ward in Tokyo

Concerning the fluctuation from the previous year for the volume of traded existing houses by ward, Taito Ward recorded the biggest increase at 63.8% (about 1.6 times that for the previous year), followed by Chiyoda Ward, Chuo Ward and Bunkyo Ward at 24.2%, and Suginami Ward at 23.8%. In addition, Taito Ward also exhibited a significant increase in the total number of new housing starts at 116.7% (about 2.2 times greater than the previous year). Among area groups that have a larger volume of traded existing houses, in particular, Chiyoda Ward, Chuo Ward and Bunkyo Ward, as well as Setagaya Ward and Ota Ward, are maintaining the trend of increasing trading volume.

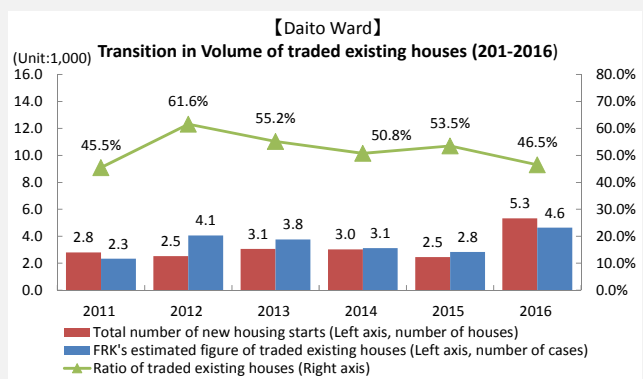
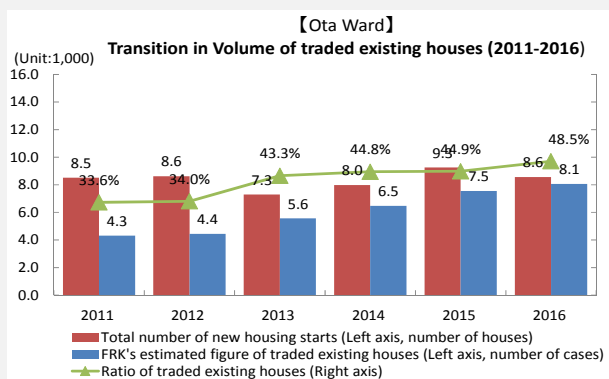
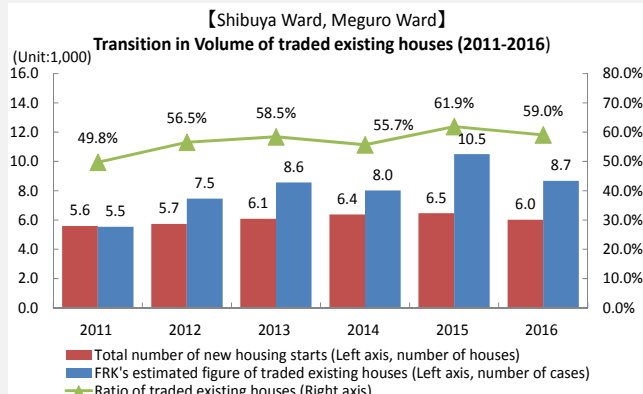
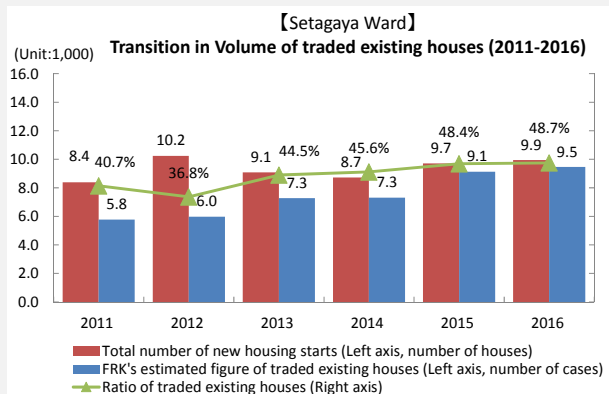
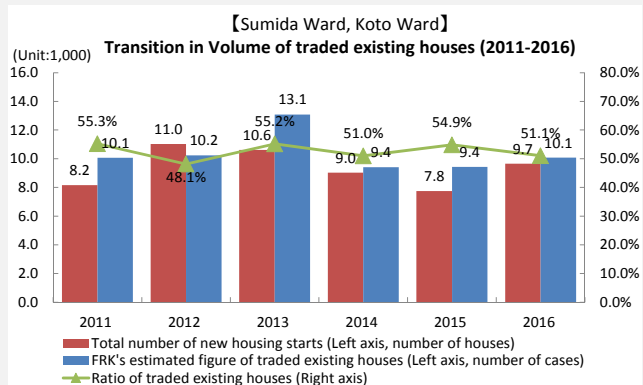
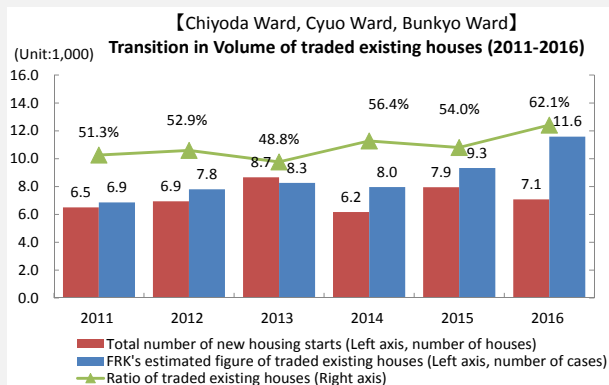
<Volume of traded existing houses in 2016 (flash report) and fluctuation from 2015>

Rank	Area for estimation	(Unit:1000 cases)	Rank	Area for estimation	(%)
1	Chiyoda, Cyuo, Bunkyo ward	11.6	1	Daito ward	63.8%
2	Sumida, Koto ward	10.1	2	Chiyoda, Cyuo, Bunkyo ward	24.2%
3	Setagaya ward	9.5	3	Suginami ward	23.8%
4	Shibuya, Meguro ward	8.7	4	Nerima ward	10.7%
5	Ota ward	8.1	5	Shinagawa ward	7.3%
6	Adachi, Katsushika ward	7.5	6	Sumida, Koto ward	6.9%
7	Shinjyuku ward	6.9	7	Ota ward	6.9%
8	Minato ward	6.3	8	Nakano ward	6.9%
9	Itabashi ward	6.2	9	Setagaya ward	3.7%
10	Suginami ward	5.9	10	Kita, Arakawa ward	0.4%
11	Nerima ward	5.3	11	Itabashi ward	-2.1%
12	Kita, Arakawa ward	5.2	12	Adachi, Katsushika ward	-2.2%
13	Shinagawa ward	5.1	13	Minato ward	-2.7%
14	Toshima ward	4.7	14	Edogawa ward	-8.3%
15	Daito ward	4.6	15	Shinjyuku ward	-8.6%
16	Edogawa ward	4.1	16	Toshima ward	-9.8%
17	Nakano ward	3.2	17	Shibuya, Meguro ward	-17.5%

<Total number of new housing starts in 2016 and fluctuation from 2015>

Rank	Area for estimation	(Unit:1000 houses)	Rank	Area for estimation	(%)
1	Adachi, Katsushika ward	13.0	1	Daito ward	116.7%
2	Setagaya ward	9.9	2	Shinagawa ward	89.6%
3	Sumida, Koto ward	9.7	3	Kita, Arakawa ward	31.2%
4	Ota ward	8.6	4	Nakano ward	28.8%
5	Kita, Arakawa ward	8.3	5	Sumida, Koto ward	24.6%
6	Shinagawa ward	8.0	6	Edogawa ward	10.3%
7	Chiyoda, Cyuo, Bunkyo ward	7.1	7	Adachi, Katsushika ward	6.1%
8	Nerima ward	6.5	8	Setagaya ward	2.4%
9	Itabashi ward	6.4	9	Suginami ward	0.4%
10	Shibuya, Meguro ward	6.0	10	Itabashi ward	-0.8%
11	Suginami ward	6.0	11	Nerima ward	-5.3%
12	Nakano ward	5.3	12	Shibuya, Meguro ward	-7.0%
13	Daito ward	5.3	13	Ota ward	-7.7%
14	Edogawa ward	5.0	14	Chiyoda, Cyuo, Bunkyo ward	-10.9%
15	Shinjyuku ward	5.0	15	Toshima ward	-12.8%
16	Minato ward	3.0	16	Shinjyuku ward	-17.1%
17	Toshima ward	2.8	17	Minato ward	-22.8%

### Transitions in the volume of traded existing houses over the past 6 years in top areas/significant areas



※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 2016 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 2015 (in this report, the value taken as of January 1, 2016, is seen as the value as of the end of 2015).

## Brief summary of statistic estimation result 2 — Tokyo wards

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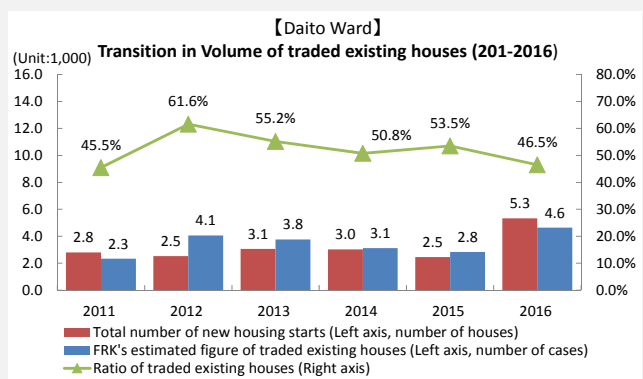
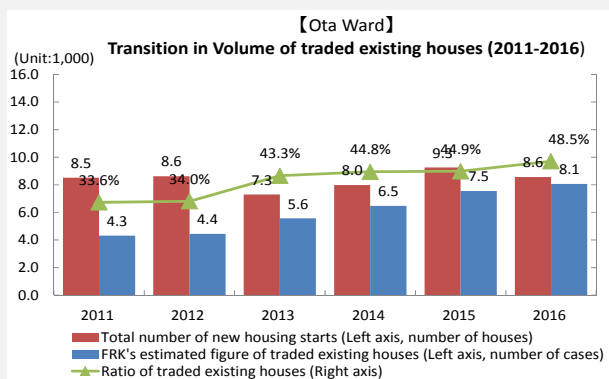
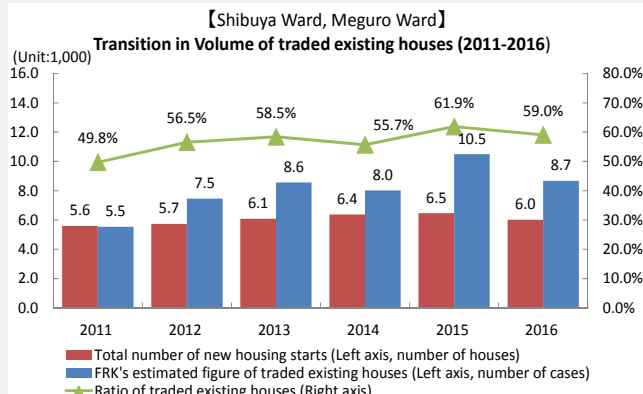
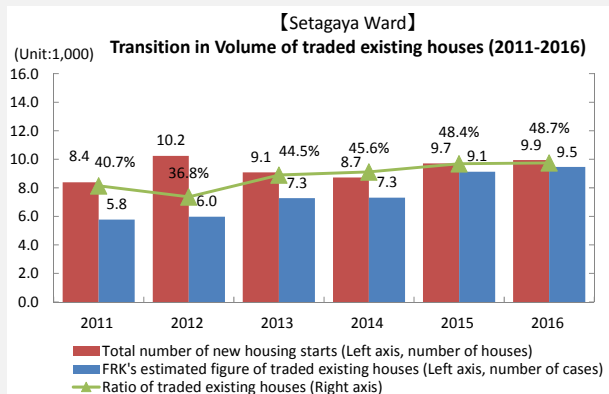
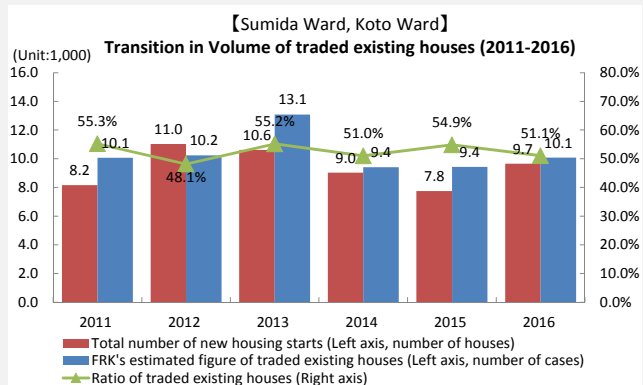
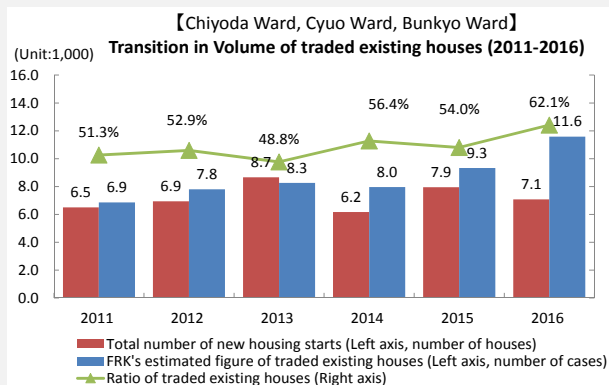
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## Brief summary of statistic estimation result 3 — 16 areas in the Tokyo metropolitan area

### 9. Statistical estimate of 16 areas of the Tokyo metropolitan area excluding Tokyo's 23 wards (2016 flash estimation)

According to FRK's estimation results of 16 areas regarding traded existing houses (2016 flash report), the Yokohama area in Kanagawa Prefecture shows the largest number with 27,100 units, followed by the Kawasaki area in Kanagawa Prefecture with 9,600 units, the Saitama area in Saitama Prefecture with 7,600 units, and the Fuchu area in Tokyo Prefecture with 7,600 units. As to the ratio of traded existing houses (2016 flash report), the Yokohama area in Kanagawa Prefecture has the highest ratio (47.8%), then the Shiki area in Saitama Prefecture (45.1%), and the Machida area in Tokyo Prefecture (44.4%).

The Yokohama area in Kanagawa Prefecture accounts for a little less than 50% of the trading volume of existing houses (27,100 units) for Kanagawa Prefecture as a whole (56,000 units, refer to 5.), which is close to the volume of the Hokkaido Prefecture as a whole (27,000 units, refer to 5.).

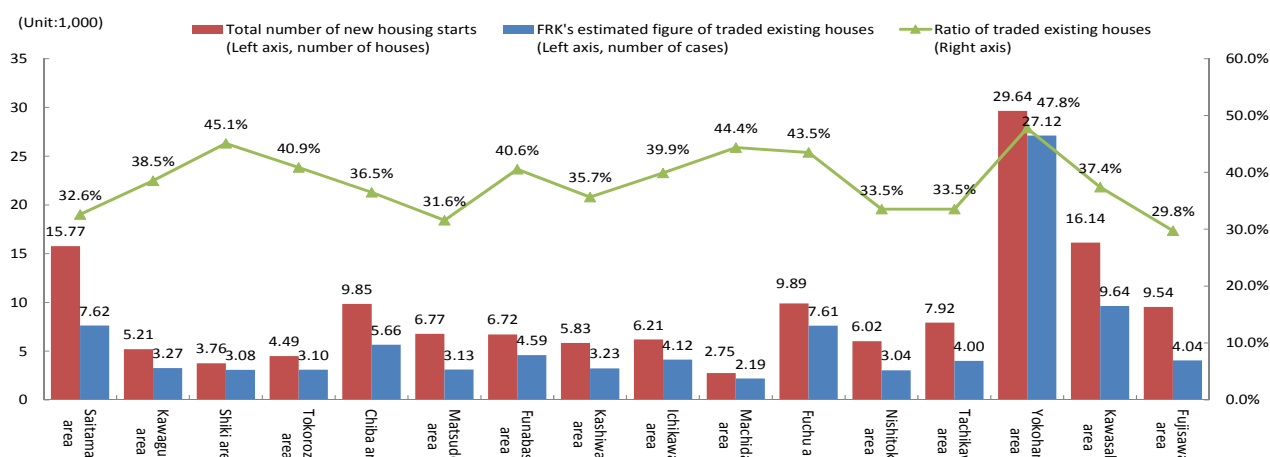
※The municipalities included in the subject areas are as listed in the table to the right.

※As to the data on the number of registrations of ownership transfer by the trading of houses, 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 houses 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 residential 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	Saitama city , Toda city , Warabi city
2 Kawaguchi Area		Kawaguchi city
3 Shiki Area		Shiki city , Asaka city , Wako city , Niiza city , Fujimi city
4 Tokorozawa Area		Tokorozawa city , Sayama city , Iruma city
5 Chiba Area	Chiba	Chiba city , Narashino city
6 Matsudo Area		Matsudo city , Nagareyama city
7 Funabashi Area		Funabashi city , Yachiyo city
8 Kashiwa Area		Kashiwa city , Abiko city , Noda city
9 Ichikawa Area	Tokyo	Ichikawa city , Kamagaya city , Urayasu city
10 Machida Area		Machida city
11 Fuchu Area	Tokyo	Musashino city , Mitaka city , Fuchu city , Chofu city , Koganei city , Komae city , Tama city , Inagi city
12 Nishitokyo Area		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	Kanagawa	Kawasaki city
16 Fujisawa Area		Kamakura city , Fujisawa city , Chigasaki city , Samukawa town

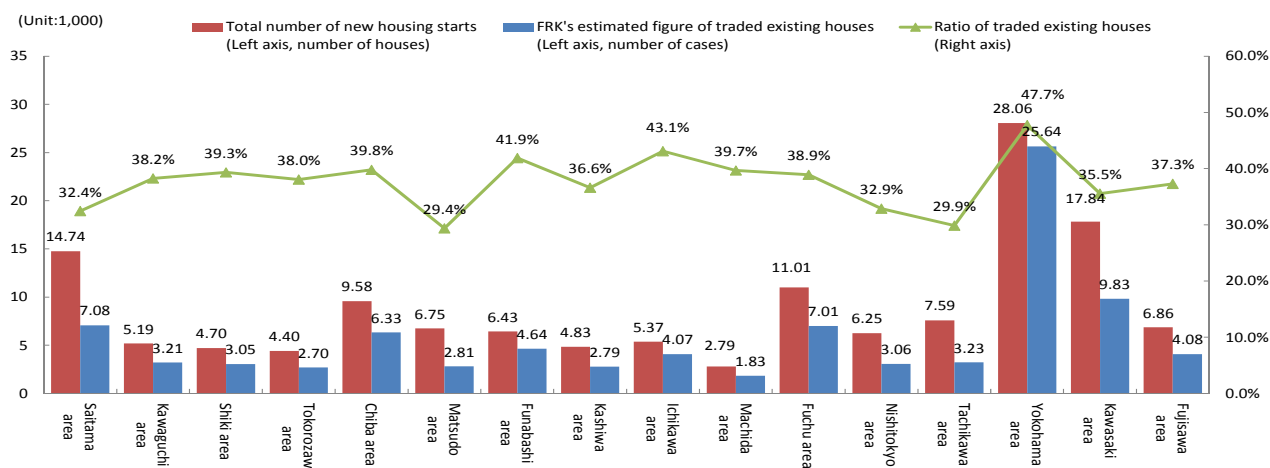
#### Estimated figures in 2016 flash report

Volume of traded existing houses of 16 areas in the Tokyo metropolitan area (2016 flash report)



#### Estimated figures in 2015

Volume of traded existing houses of 16 areas in the Tokyo metropolitan area (2015)



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

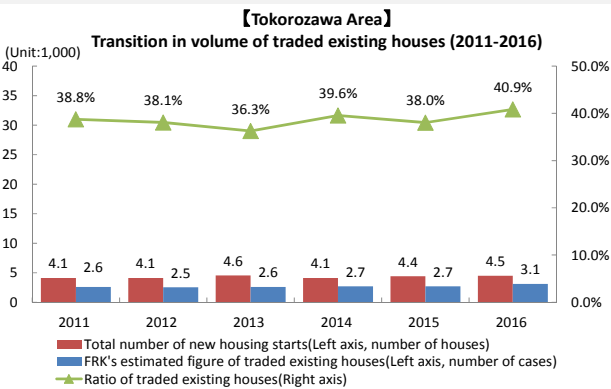
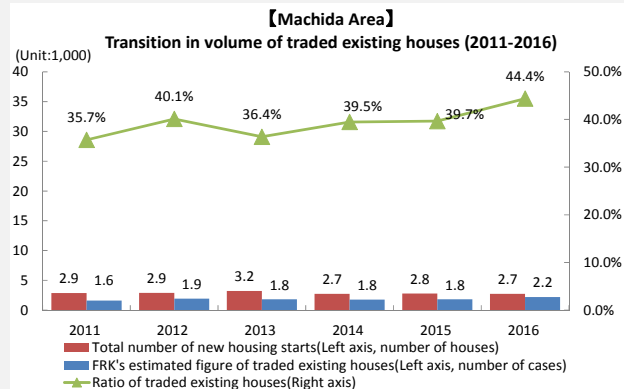
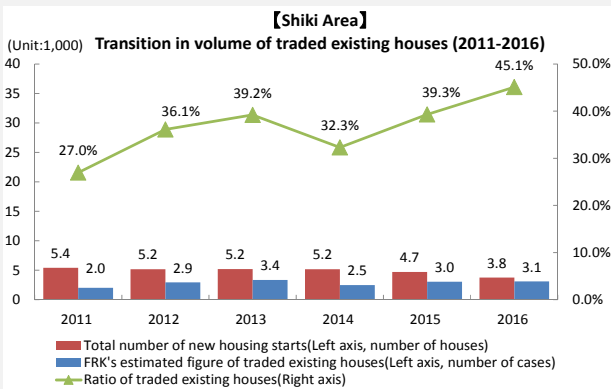
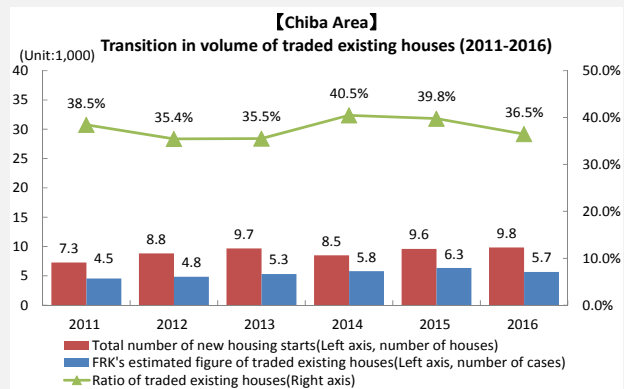
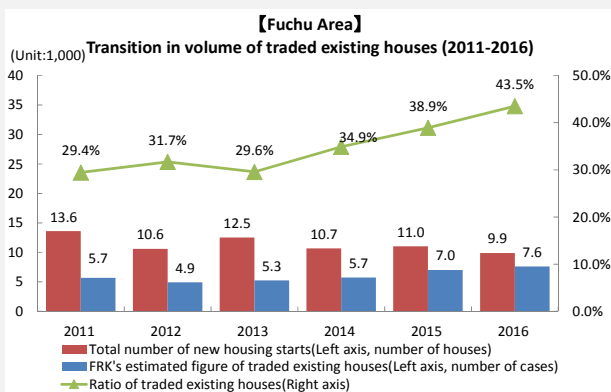
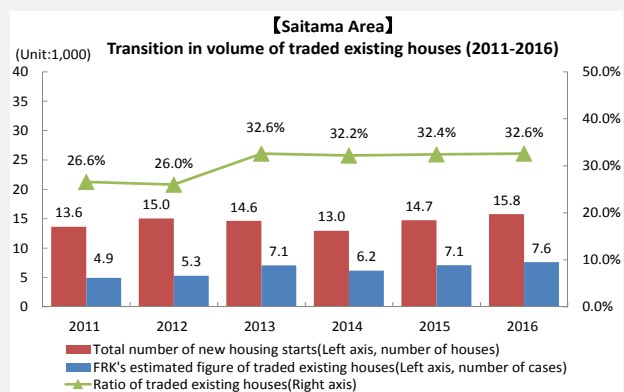
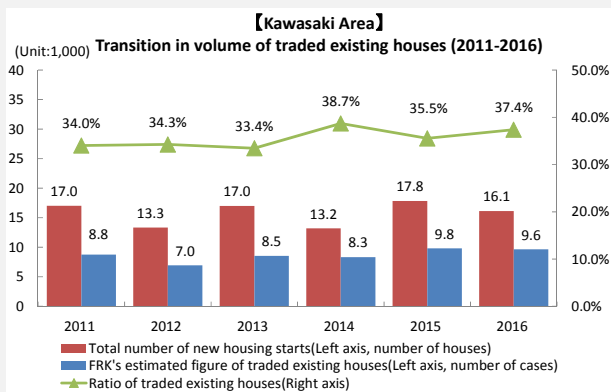
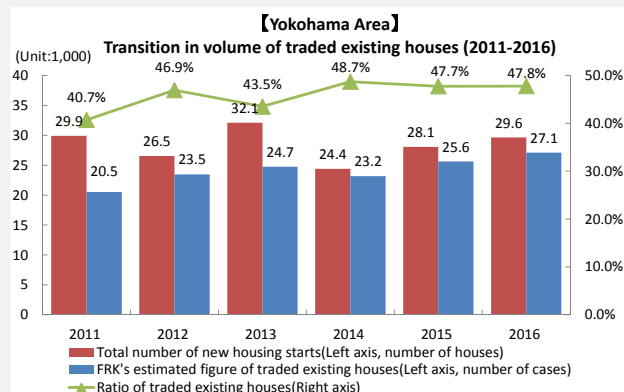
※FRK's estimated volume of traded existing houses by area in 2016 is a flash estimation report, made using the ratio of residential houses among the number of existing buildings, where the number of existing non-residential houses uses the value for 2015 (in this report, the value taken as of January 1, 2016, is seen as the value as of the end of 2015).

## 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 trading volume of existing houses is increasing gradually in the top 4 areas with the greatest trading volume of existing houses, listed in the previous page. Among these areas, the Fuchu area in Tokyo Prefecture and the Shiki area in Saitama Prefecture show a decrease in the total number of new housing starts compared to the previous year (2015), and an increase in the volume of traded existing houses, which has resulted in an increased ratio of the trading volume of existing houses. On the other hand, the ratio of traded existing houses has increased in the Machida area in Tokyo Prefecture and the Tokorozawa area in Saitama Prefecture as a result of an increase in the volume of traded existing houses, while the total number of new housing starts remained at the same level as the previous year.

#### Transitions over the past 6 years in significant areas



※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 2016 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 2015 (in this report, the value taken as of January 1, 2016, is seen as the value as of the end of 2015).

※The traded volume of existing houses and new housing starts in the Fuchu area from 2014 to 2016 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

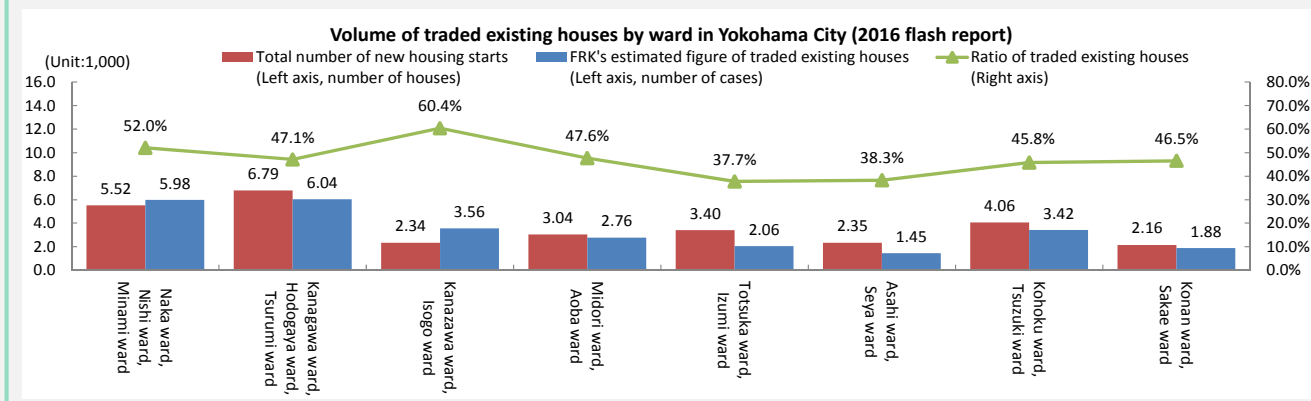
### 11. Statistical estimate of Yokohama City and wards (2016 flash estimation)

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 other prefectures). In the 2016 flash estimation, the results show that Hodogaya Ward, Tsurumi Ward and Kanagawa Ward had the largest volume with 6,040 units; followed by Naka Ward, Nishi Ward and Minami Ward (5,980 units). When areas with a large total number of new housing starts are included, it becomes clear that the traded volume is relatively high in areas with convenient access, such as Naka Ward, Nishi Ward and Minami Ward; Hodogaya Ward, Tsurumi Ward and Kanagawa Ward; and Kohoku Ward and Tsuzuki Ward.

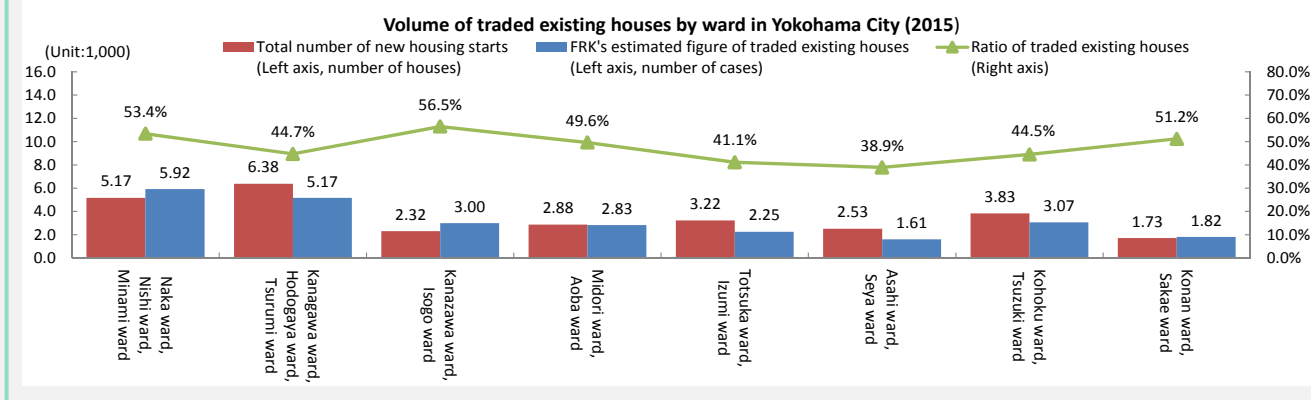
When looking at the data by area, there are multiple areas where the volume of traded existing houses exceeds the total number of new housing starts. According to the 2016 flash report, Kanazawa and Isogo wards have the highest ratio of traded existing houses at 60.4%, followed by Naka, Nishi and Minami wards at 52.0%. While Totsuka Ward and Izumi Ward have the lowest ratio of traded existing houses (37.7%), it exceeds the national average ratio of traded existing houses (37.4%, refer to 4.), meaning that these areas have a relatively high share of trading for existing houses.

Among the top 3 areas with the largest total number of new housing starts and traded volume of existing houses, Naka, Nishi and Minami wards as well as Kanagawa, Hodogaya and Tsurumi wards, in particular, have shown a consistent increase in the latest volume of new housing starts and traded existing houses, indicating that the market for trading existing houses is driven by the supply of new houses in these areas.

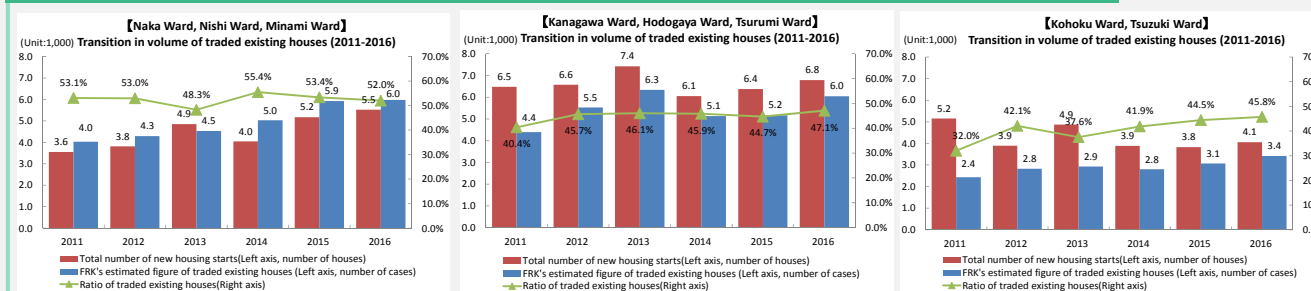
#### Estimated figures in 2016 flash report



#### Estimated figures in 2015



#### Transitions over the past 6 years in key areas where a high volume of existing houses are traded



※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 ownership transfer 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.

※4 The housing and land survey's established number for 2013 was used for the number of existing houses.

※5 FRK's estimated volume of traded existing houses by area in 2016 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 2015 (in this report, the value taken as of January 1, 2016, is seen as the value as of the end of 2015).



## Brief summary of statistic estimation result 5 — 22 areas in the Kansai region

### 12. Estimated results in 22 Kansai areas (Osaka and Hyogo prefectures) (2016 flash estimation)

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 (2016 flash report) of FRK's estimated figure of traded existing houses, the Osaka area in Osaka Prefecture had the largest trading volume with 28,400 units, followed by the Kobe area in Hyogo Prefecture with 15,400 units, then the Kitaosaka area in Osaka Prefecture with 5,800 units. In terms of the ratio of traded existing houses (2016 flash report), the Sumoto area in Hyogo Prefecture had the highest ratio at 58.9%, followed by the Kobe area in Hyogo Prefecture at 56.8%, and the Higashiosaka area in Osaka Prefecture at 50.7%.

The volume of traded existing houses in the Osaka area in Osaka Prefecture is similar to that of all of Chiba Prefecture (29,000 units, refer to 5.).

※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).

※As for the Osaka area and the 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.

Area for estimation	Prefecture	Municipality
1 Osaka Area	Osaka	Osaka city
2 Ikeda Area		Ikeda city, Toyonaka city, Mino city, Toyono town, Nose town
3 Hirakata Area		Hirakata city, Neyagawa city, Katano city
4 Moriguchi Area		Moriguchi city, Kadoma city
5 Kitaosaka Area		Suita city, Takatsuki city, Ibaraki city, Settsu city, Shimamoto town
6 Higashiosaka Area		Higashiosaka city, Daito city, Shijonawate city, Yao city, Kashiwara city
7 Sakai Area		Sakai city, Matsubara city, Takaishi city, Osakasayama city
8 Tondabayashi Area		Tondabayashi city, Kawachinagano city, Habikino city, Fujidera city, Taishi town, Kanan town, Chihayaasakasa village
9 Kishiwada Area	Hyogo	Kishiwada city, Izumiotsu city, Kaizuka city, Izumisano city, Izumi city, Sennan city, Tadaoka town, Kumatori town, Tajiri town, Misaki town
10 Kobe Area		Kobe city, Ashiya city, Akashi city, Miki city
11 Nishinomiya Area		Nishinomiya city
12 Itami Area		Itami city, Kawanishi city, Inagawa town, Tkarazuka city
13 Sanda Area		Sanda city
14 Amagasaki Area		Amagasaki city
15 Kahibara Area		Tamba city, Sasayama city
16 Himeji Area		Himeji city, Kamikawa town, Ichikawa town, Fukusaki town
17 Kakogawa Area		Kakogawa city, Takasago city, Inami town, Harima town
18 Yashiro Area		Nishiwaki city, Kasai city, Ono city, Kato city, Taka town
19 Tatsuno Area		Tatsuno city, Shiso city, Aioi city, Aka city, Taichi town
20 Toyooka Area		Toyooka city, Kami town, Shinonsen town
21 Yoka Area		Yabu city, Asago city
22 Sumoto Area		Sumoto city, Awaji city, Minamiawaji city

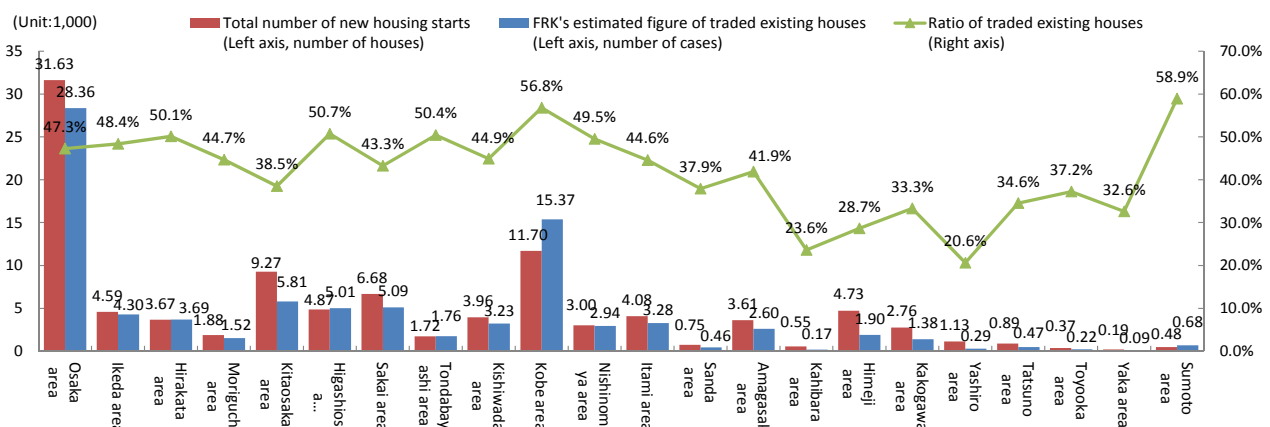
#### Estimated figures in 2016 flash report

(Prefectural scale statistic estimation 2016)

Osaka Prefecture: • FRK's estimated figure of traded existing houses: 59,000 • Ratio of traded existing houses: 45.8%

Hyogo Prefecture: • FRK's estimated figure of traded existing houses: 29,000 • Ratio of traded existing houses: 45.9%

#### Volume of traded existing houses in 22 areas in the Kansai area (Osaka and Hyogo prefectures) (2016 flash report)



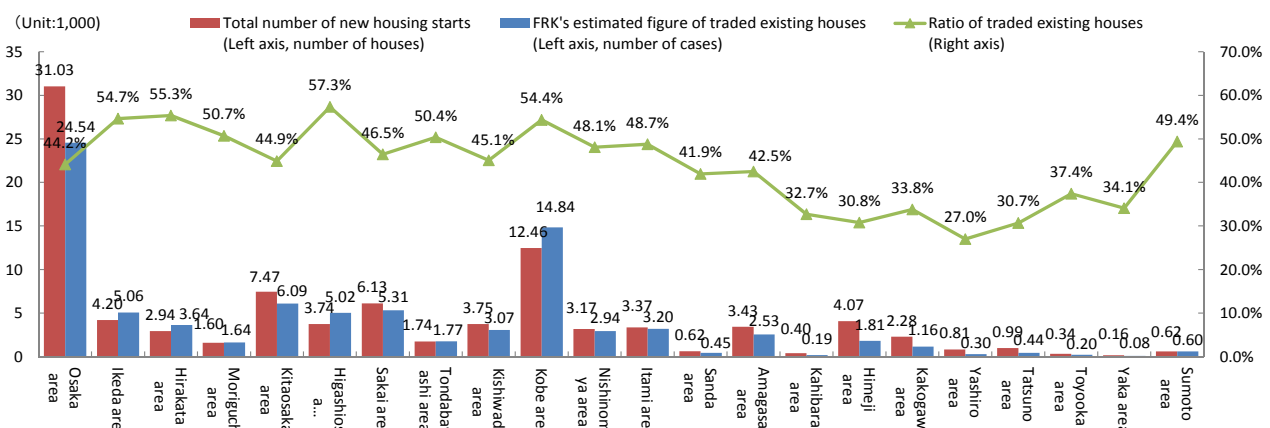
#### Estimated figures in 2015

(Prefectural scale statistic estimation 2015)

Osaka Prefecture: • FRK's estimated figure of traded existing houses: 56,000 • Ratio of traded existing houses: 46.6%

Hyogo Prefecture: • FRK's estimated figure of traded existing houses: 28,000 • Ratio of traded existing houses: 46.1%

#### Volume of traded existing houses in 22 areas in the Kansai area (Osaka and Hyogo prefectures) (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 area in 2016 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 2015 (in this report, the value taken as of January 1, 2016, is seen as the value as of the end of 2015).

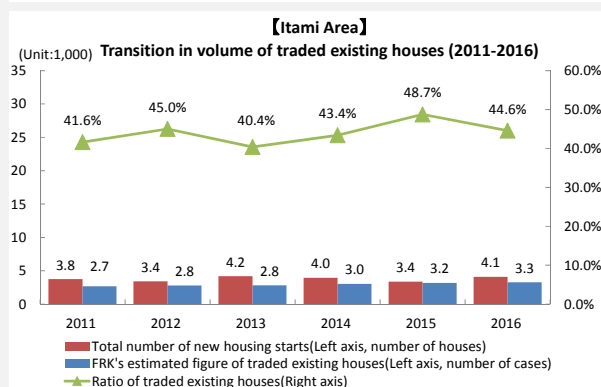
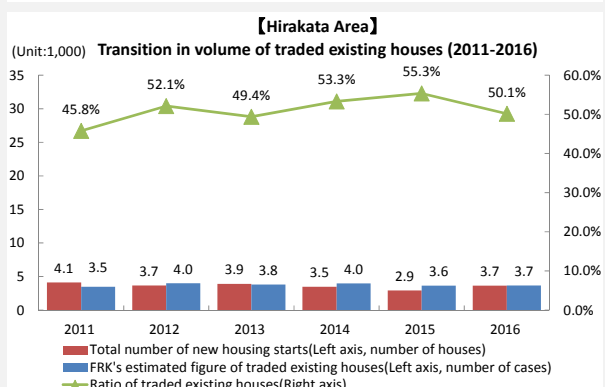
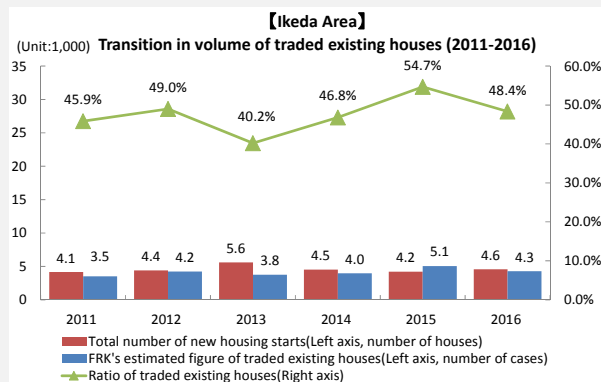
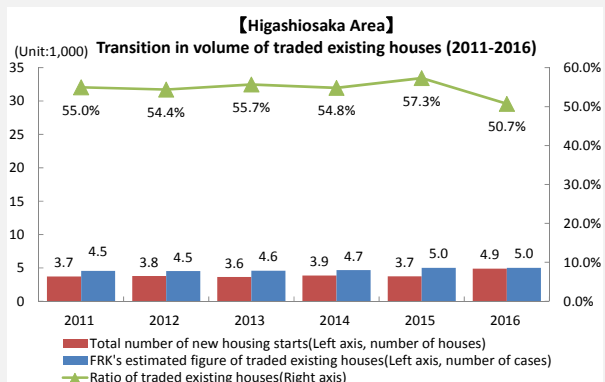
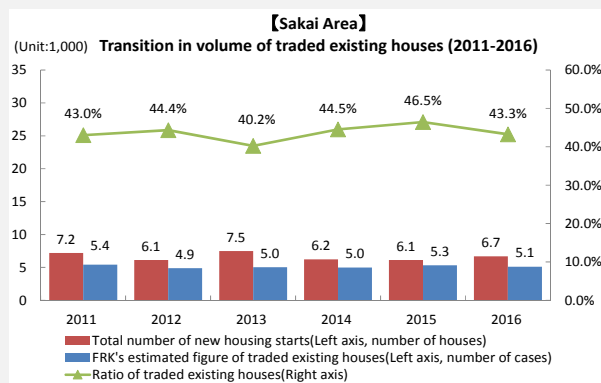
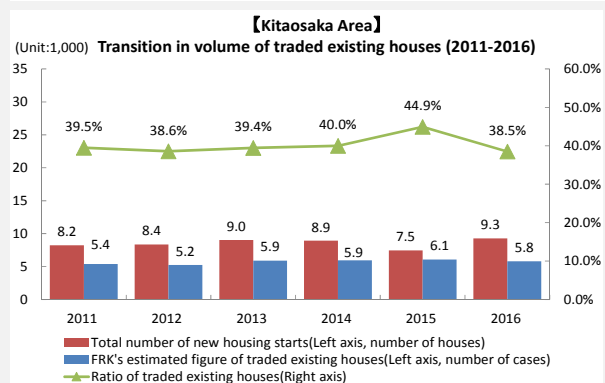
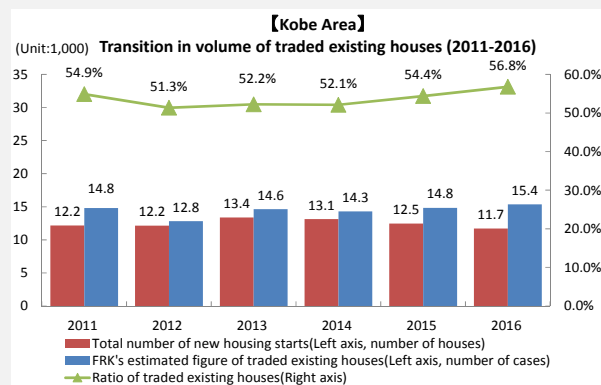
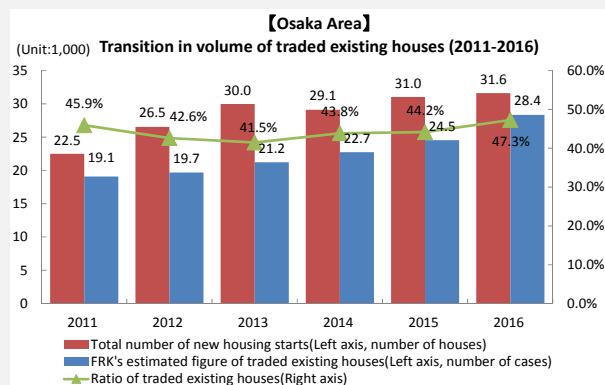
## Brief summary of statistic estimation results 5 — 22 areas in the Kansai region

### 13. Transitions in trading volume in significant areas

Looking at the latest transition in the volume of traded existing houses in the Osaka area in Osaka Prefecture 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 2016 (flash report) is 47.3%, which is 9.9 percentage points higher than that of the national figure at 37.4% (Refer to 4.), indicating that the market in this area for trading existing houses has matured to some extent, and is gradually expanding.

Looking at the transition in the Kobe area in Hyogo Prefecture, the total number of new housing starts has slightly decreased, but the volume of traded existing houses has remained almost unchanged. As to the ratio of traded existing houses, the ratio in 2016 (flash report) is 56.8%, about 10.9% higher than that for Hyogo Prefecture as a whole (45.9%. Refer to 5). The fact that this ratio has stayed consistently above 50% over the last 6 years indicates that the trading of existing houses in this area has been stable.

#### Transitions over the past 6 years in areas where a high volume of existing houses are traded



※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 2016 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 2015 (in this report, the value taken as of January 1, 2016, is seen as the value of the end of 2015).

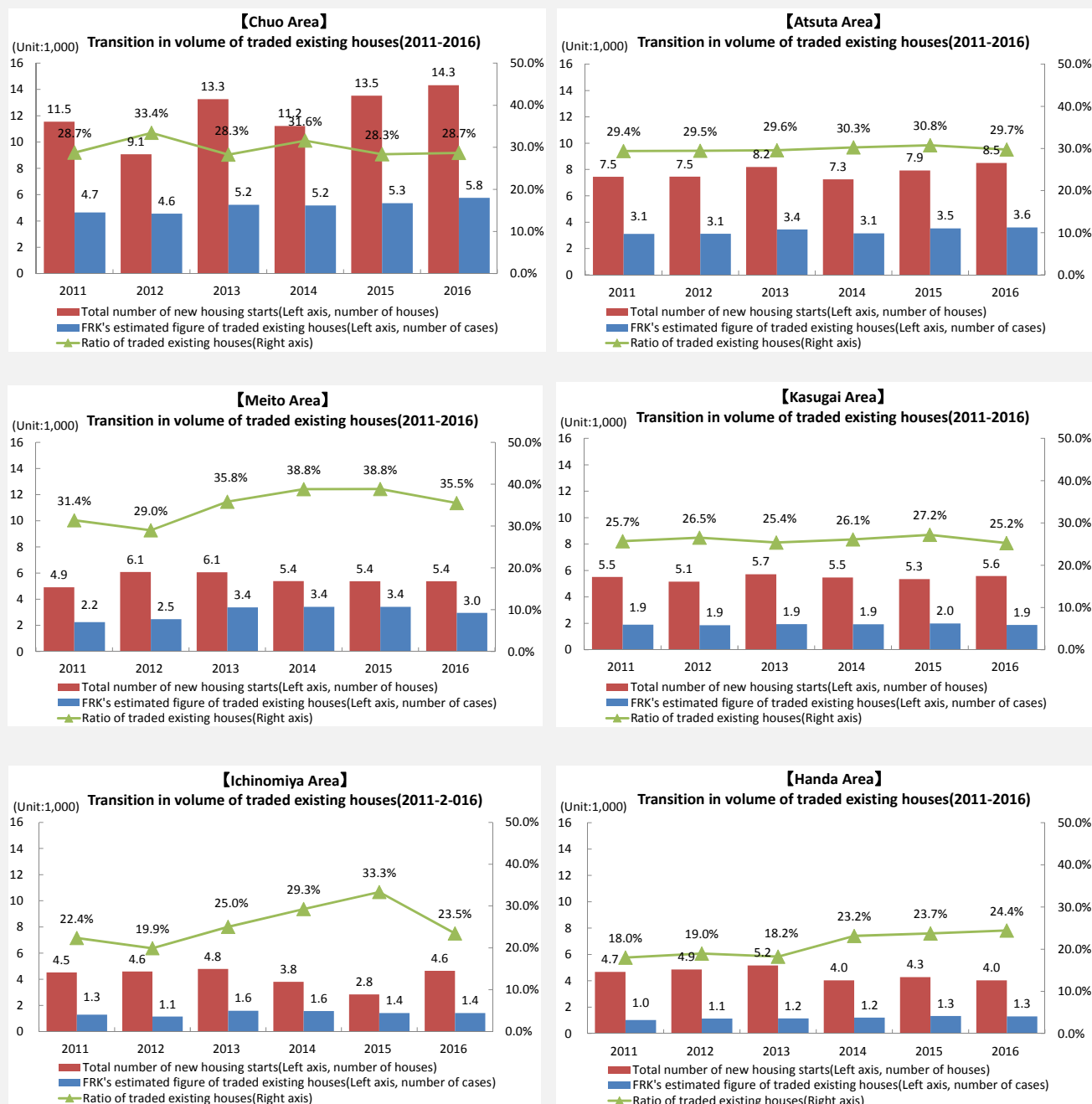
## Brief summary of statistic estimation result 6 — 14 areas in the Chukyo area

### 15. Transition of trading volume in significant areas

The Chuo area in Aichi Prefecture, which has the largest volume of traded existing houses, shows a significant fluctuation in the total number of new housing starts, whereas the volume of traded existing houses has remained almost unchanged. This trend is common to many areas in the Chukyo area (Aichi Prefecture), including Nagoya City.

The fluctuations in the ratio of traded existing houses are consistent with those of the total number of new housing starts, since the volume of traded existing houses has remained almost the same in all areas.

#### Transitions over the past 6 years in areas where a high volume of existing houses are traded



※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 2016 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 2015 (in this report, the value taken as of January 1, 2016, is seen as the value as of the end of 2015).