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# The Asian Real Estate Market 2016

October 2016

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<b>China</b>	Indeterminacy of market is rising cause of facing transition stage.
<b>Korea</b>	Residential and Real Estate Investment are stable although economic stagnation.
<b>Taiwan</b>	Integration within Greater China brings satisfactory in Hotel domain.
<b>Singapore</b>	Wider domains keep favorable, but residential and commerce show signs to weaken.
<b>India</b>	Economic growth improves broad domains in real estate.
<b>Russia</b>	Residential remains stable in spite of largely affected by devalued currency.

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## China

Indeterminacy of market is rising cause of facing transition stage.

1

Macro Economy and Real Estate Investment

2

Real Estate Investment

3

Residential Market

4

Commercial Development and Office Market

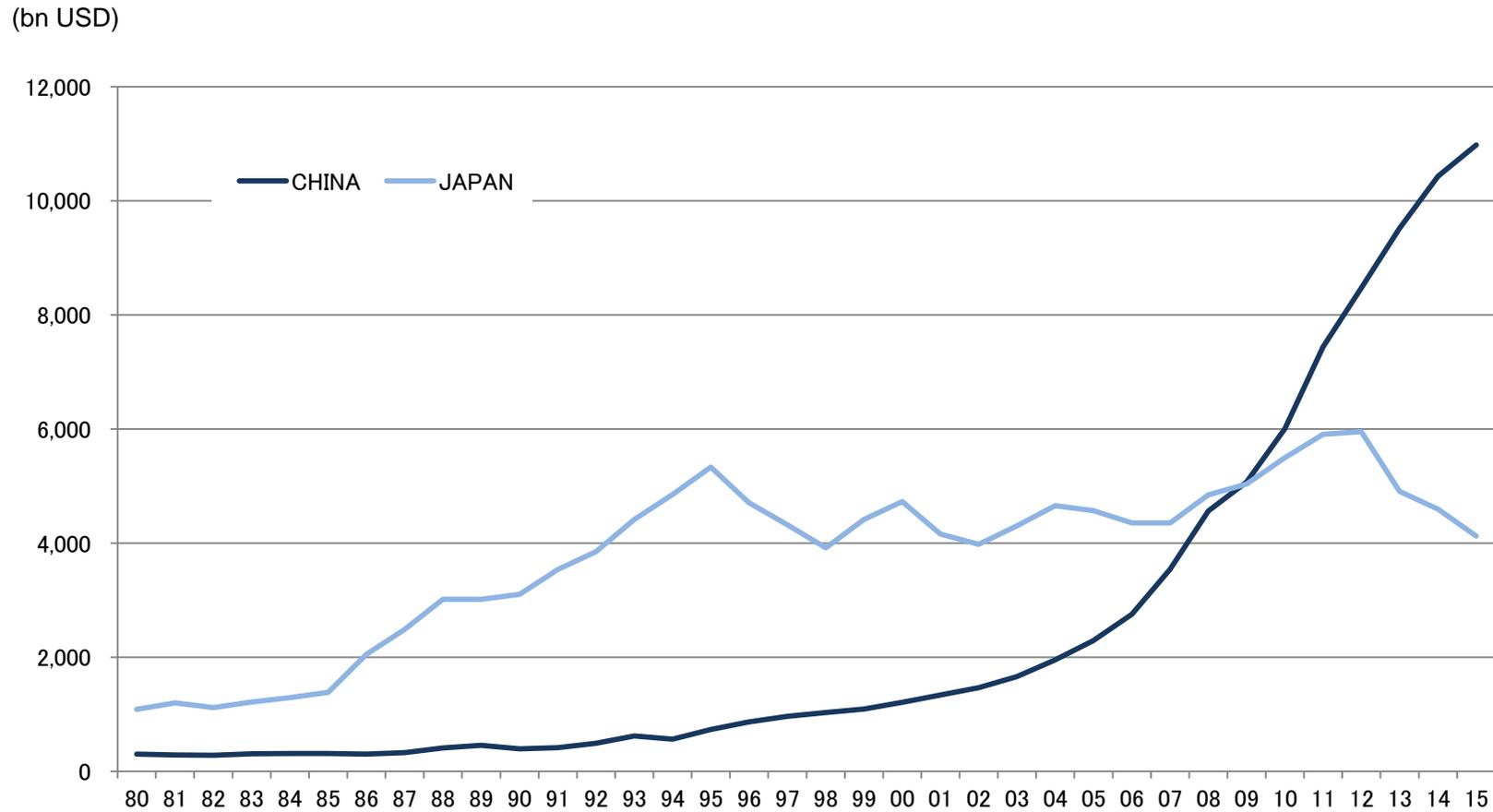
5

Movements of Chinese Real Estate Developers

## China's Macroeconomic Environment: Economic Growth

# China's GDP overtook Japan in 2010, and the gap will expand after 2012.

*Changes in Japan and China's nominal GDP*

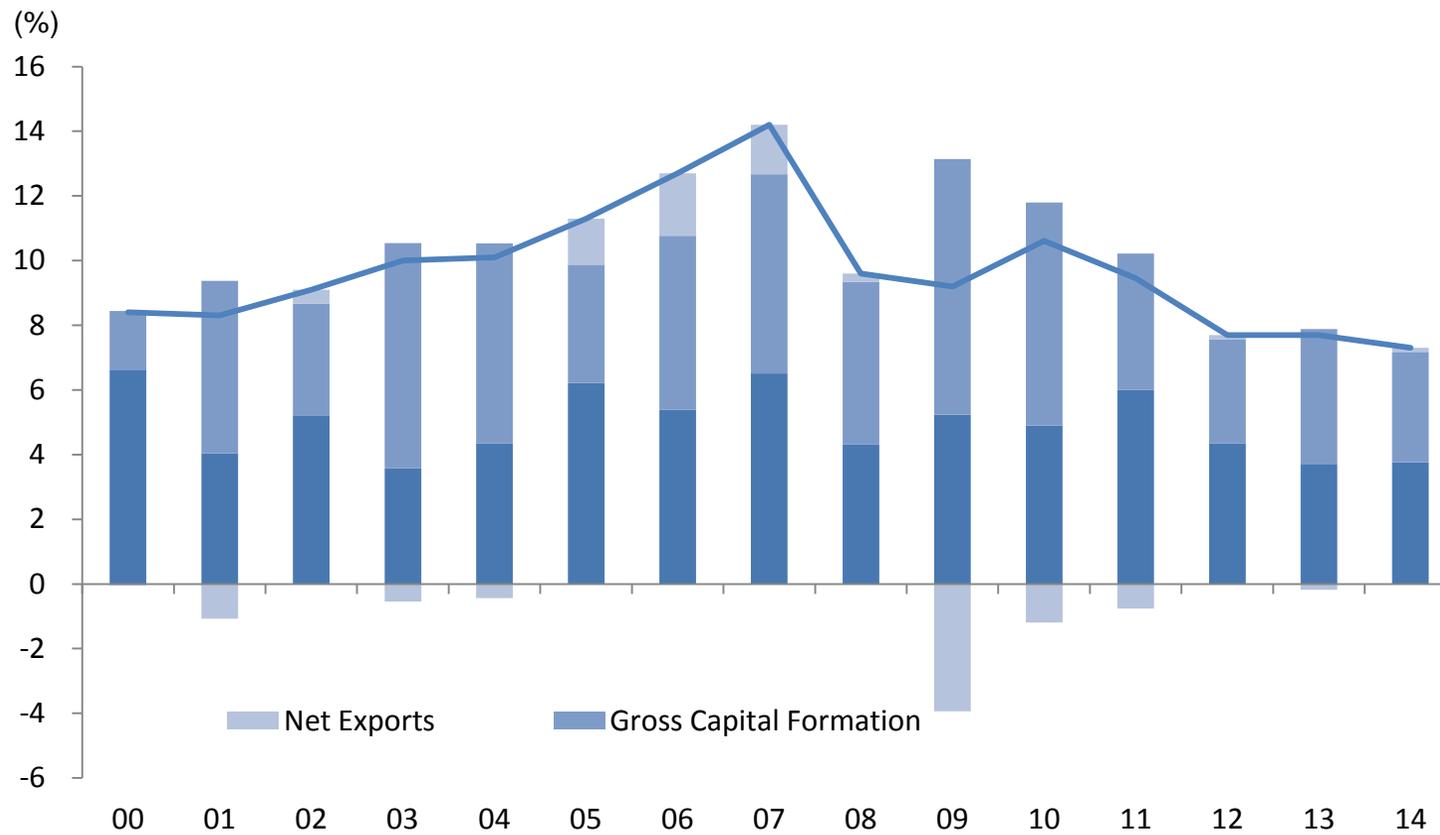


Source: IMF

## China's Macroeconomic Environment: Economic Growth

Real GDP growth rate has been on a downward trend since 2007 and reached below 8% in 2012 and the following years.

*Changes in real GDP growth rate of China and sectoral contribution*

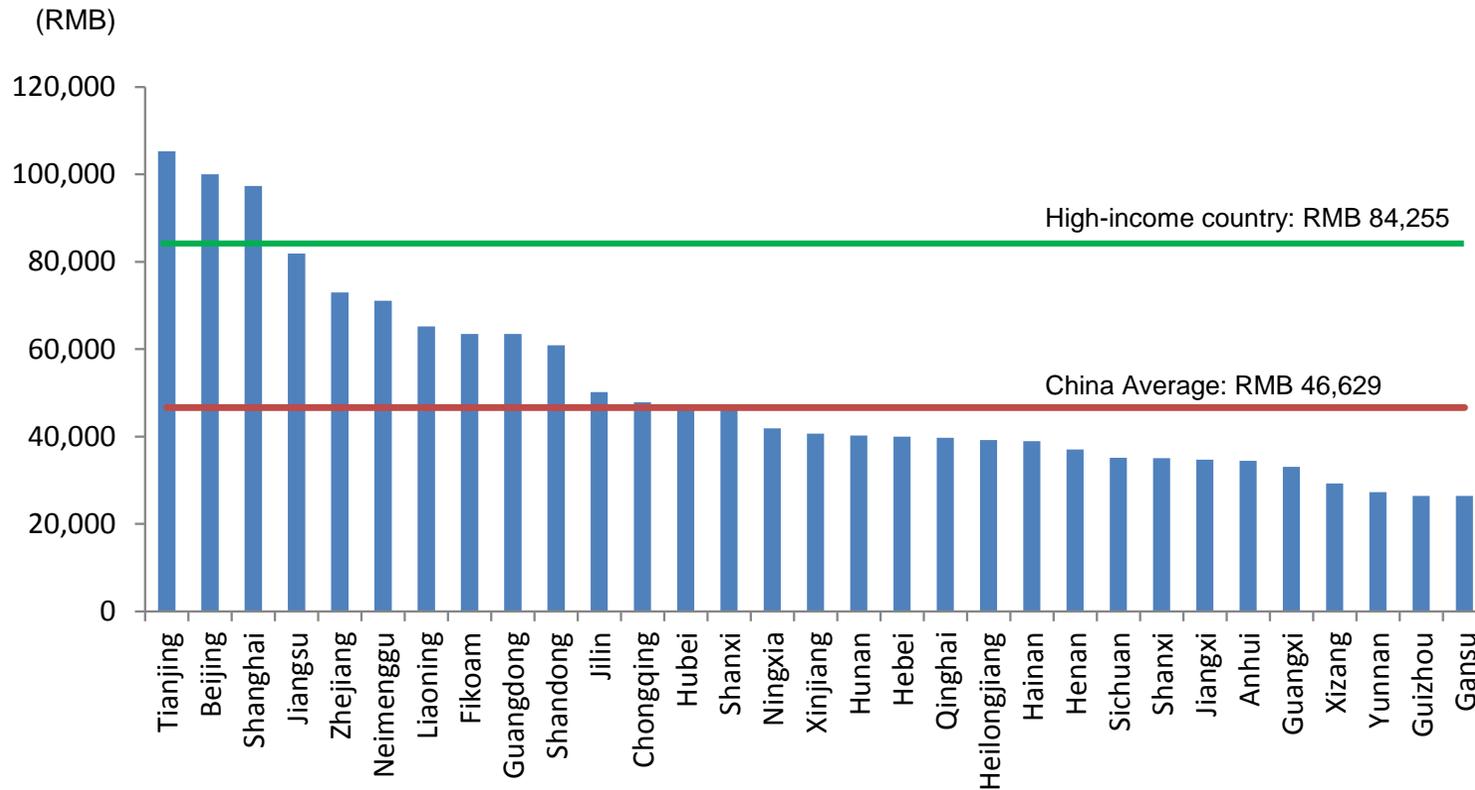


Source: The National Bureau of Statistics of China

## China's Macroeconomic Environment: Economic Growth

GDP per capita of Tianjin, Beijing, and Shanghai has reached the criteria set for a high-income nation, i.e. 12,616 USD.

GDP per capita by province/municipality directly under the central government (2014)



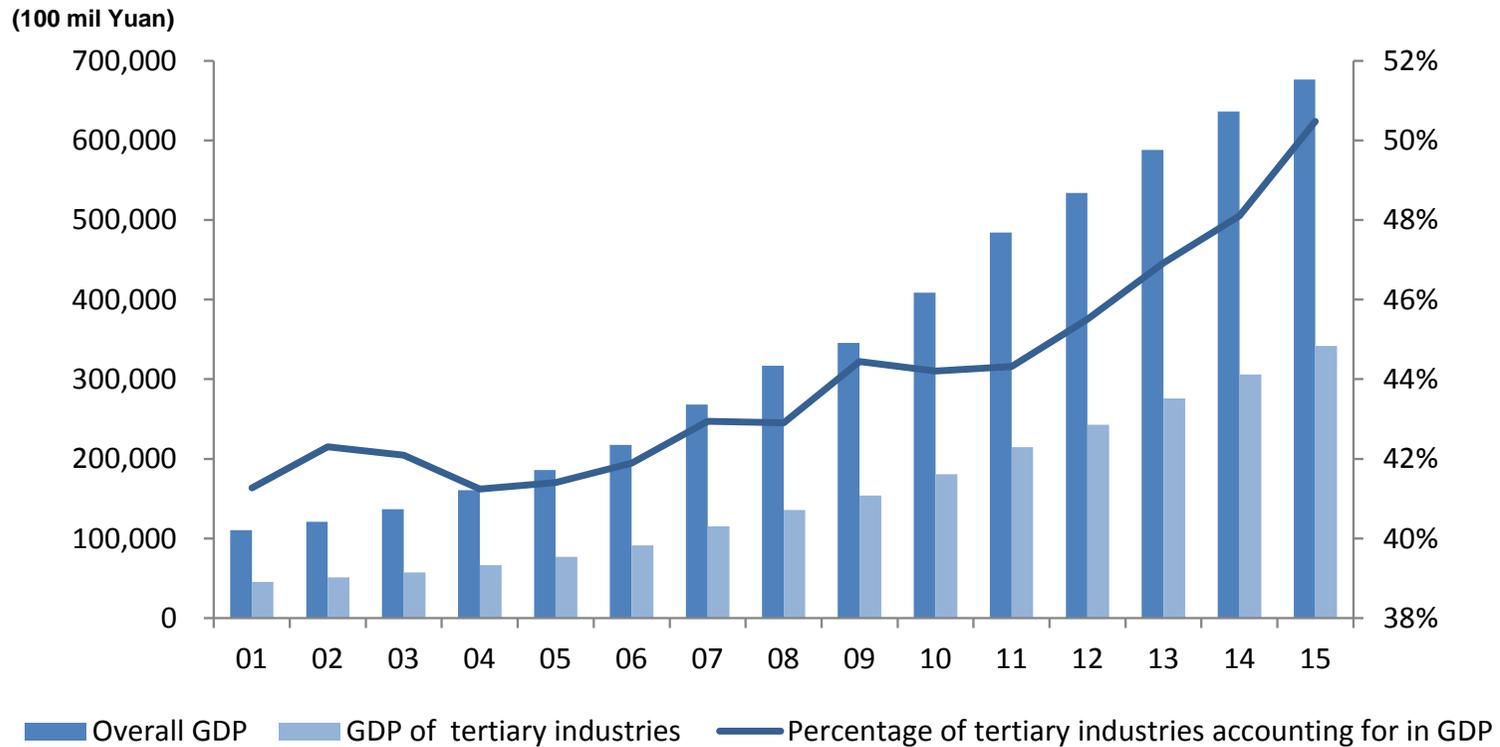
Note: World Bank definition of high-income country: GDP per capita  $\geq$  USD 12,616 (about RMB 84,255 according to the rate on Thursday, Sep. 1, 2016)

Source: National Bureau of Statistics, China

## China's Macroeconomic Environment: Economic Growth

Tertiary industries have been growing with their contribution to a GDP growth of over 50% in 2015. This growth became the main factor for increasing real estate investment in urban areas.

*Trends of Percentage of Tertiary Industries Accounting for in GDP*

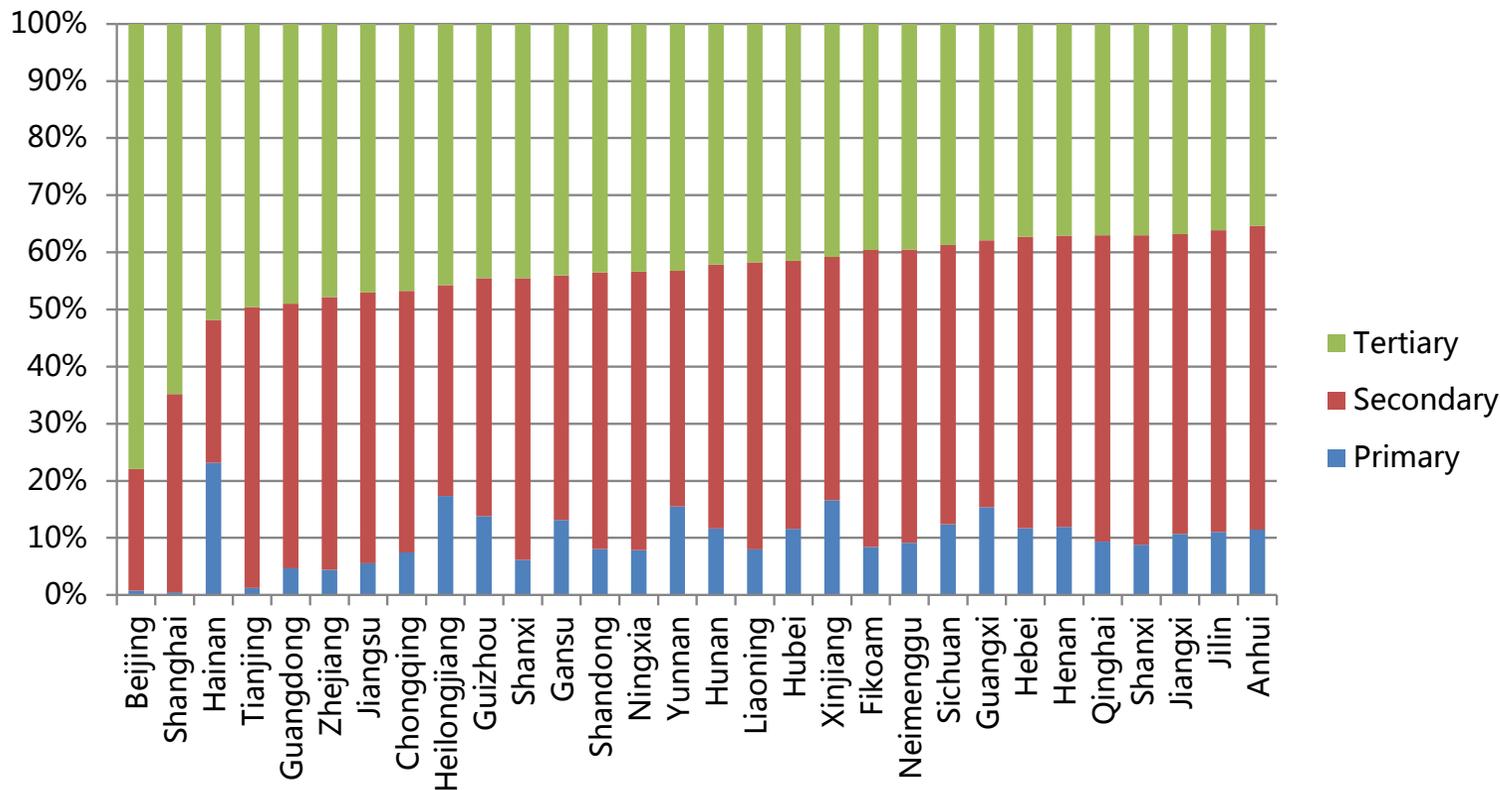


Source) National Bureau of Statistics of China

## China's Macroeconomic Environment: Economic Growth

Beijing has the highest percentage of tertiary industrial contribution, followed by Shanghai, Xizang, Hainan, Tianjin and Guangdong, all of which far exceed the national average.

Contribution of GDP from different industrial sectors by region in 2014



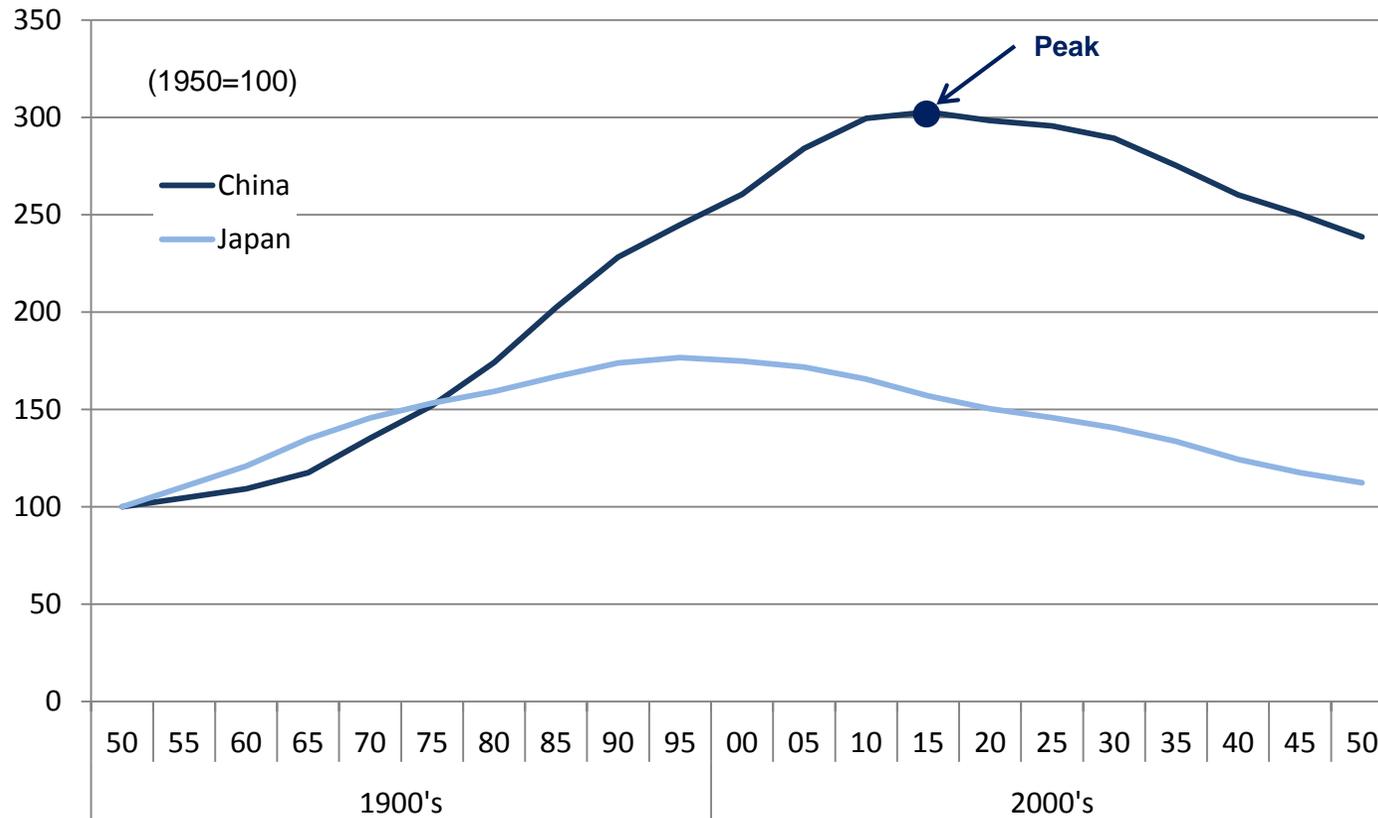
Average percentage of Tertiary Industry in China's GDP: 48.1%

Source) National Bureau of Statistics of China

## China's Macroeconomic Environment: Population

# The productive-age population is expected to peak by 2015.

*Productive-age population of China and Japan*



Source: Compiled by NRI from UN World Population Prospects: 2015 Revision

## China's Macroeconomic Environment: Demographic changes

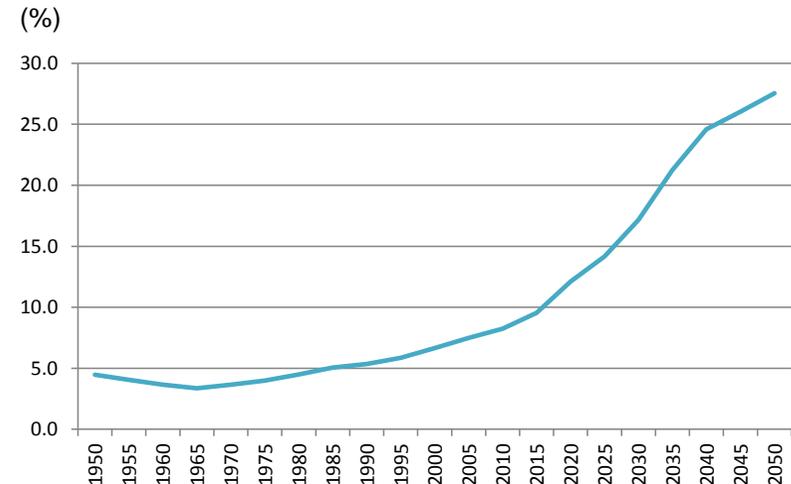
**Worries about the financial burden due to falling birthrates and an aging population and about a decline of the labor force, has led to, from 2016, the formal adoption of the “two-child policy,” which is expected to contribute to continuous economic growth.**

- After 2015, when it is estimated China's demographic dividend disappears, the government has to face an increased financial burden, a decrease of the labor force, a consumption slump and other problems due to a declining birthrate and aging population.
- As a countermeasure, in January 2016 the government abolished the “One-child policy,” and formally adopted the “Two-child” policy.
  - The one-child policy was implemented in China in 1979. To solve the problems of an aging population and a decrease in the labor force, the government announced an easing policy, a two-child policy, which allows couples to have one more child if any one of them is the only child in their parents' family, at the end of December 2013.
  - In 2014 and immediately after the announcement of the two-child policy by the central government, the local governments of Beijing, Shanghai, and Guangdong provinces announced detailed regulations to "allow couples to have one more child if any one of them is the only child in their parents' family" and started receiving applications for approval of the birth of a second child.
  - Furthermore, at the end of 2015, the Standing Committee of the National People's Congress carried the “Two-child” policy that is applicable to all families, and that it would be adopted formally from Jan. 2016.

*Change in proportion of young population (<15)*



*Change in proportion of 65+ population*

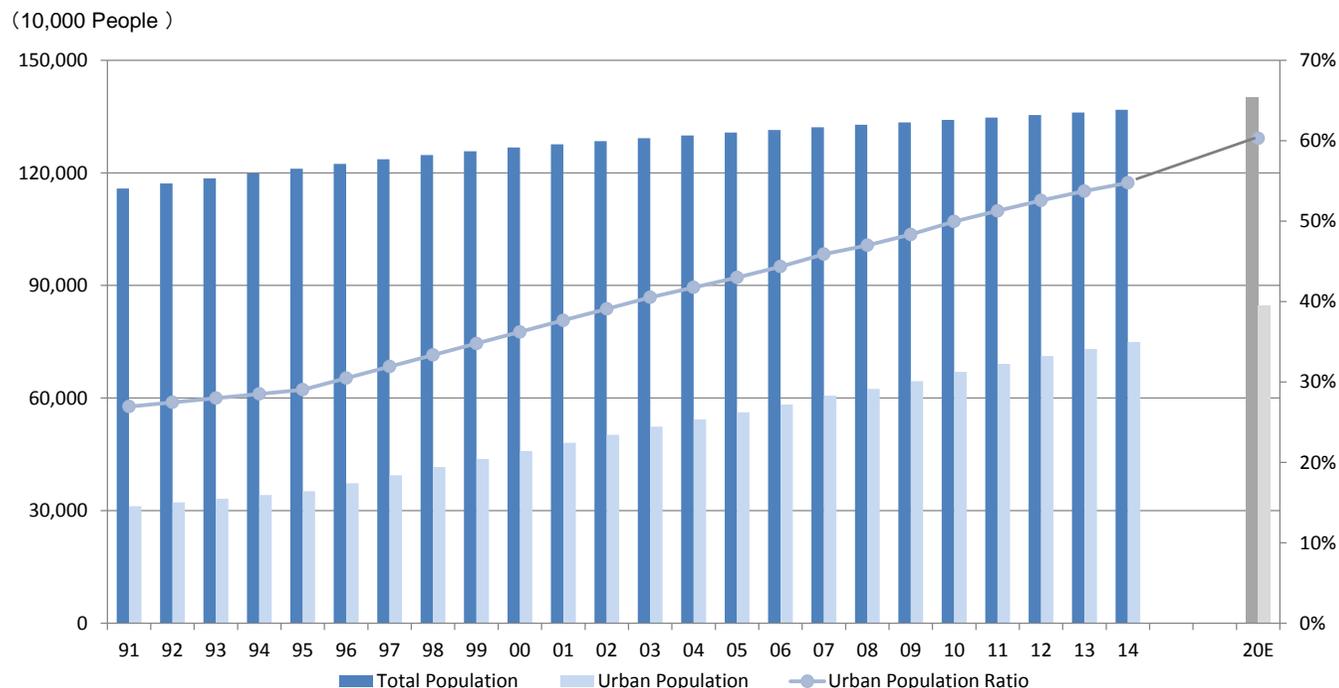


## China's Macroeconomic Environment: Demographic changes

**Urbanization has proceeded rapidly in China, with its urban population ratio near 55% in 2014. It is expected that China's permanent urban residents will reach 60% of the population by 2020.**

- China's urbanization rate had risen by more than 27.8% points from 1991 to 2014.
- The National New-type Urbanization Plan (2014-2020) was issued by the State Council of China on 16th March 2014. The plan highlights that it is essential to raise the quality of urbanization that comes in line with the Chinese approach to urbanization. The plan also underlined that by 2020, permanent urban residents will reach approx. 60% of the population, while residents in the city census register will account for approx. 45% of the total population, with 100 million rural residents settling down in the urban areas.

*Population and urbanization rate in china*

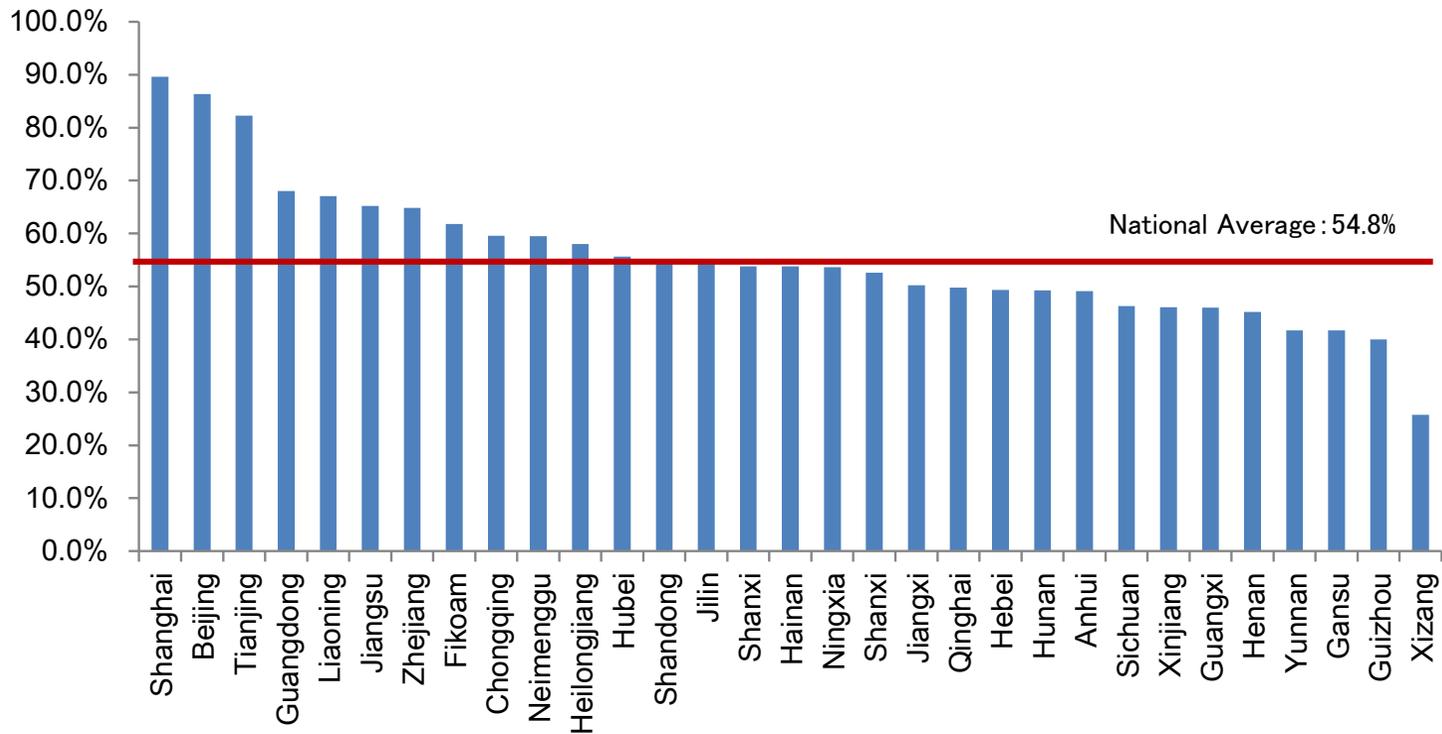


Note) Total population in 2020 is the estimate value of UN while the urbanization rate is the target value stated in government policy.

## China's Macroeconomic Environment: Demographic changes

Urbanization is not only seen in coastal areas, but also in Chongqing, Neimenggu, Hubei and other cities in the hinterlands and northeastern China.

Urbanization rate of China by area (2014)



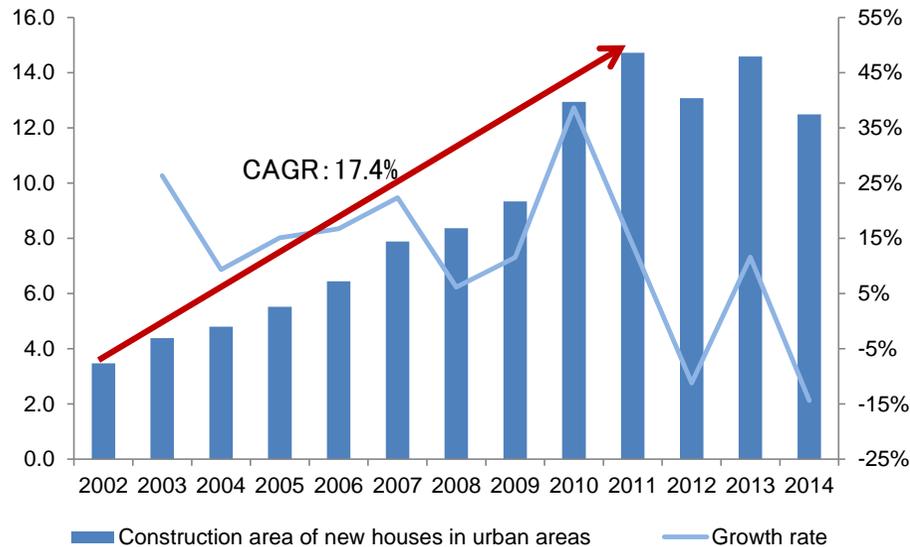
Source: National Bureau of Statistics, China

## China's Macroeconomic Environment: Housing conditions

For 10 years between 2002 and 2011, the construction area of new houses in urban areas increased by around 17% annually, although it fluctuated after 2011 when the real estate suppression policy was implemented.

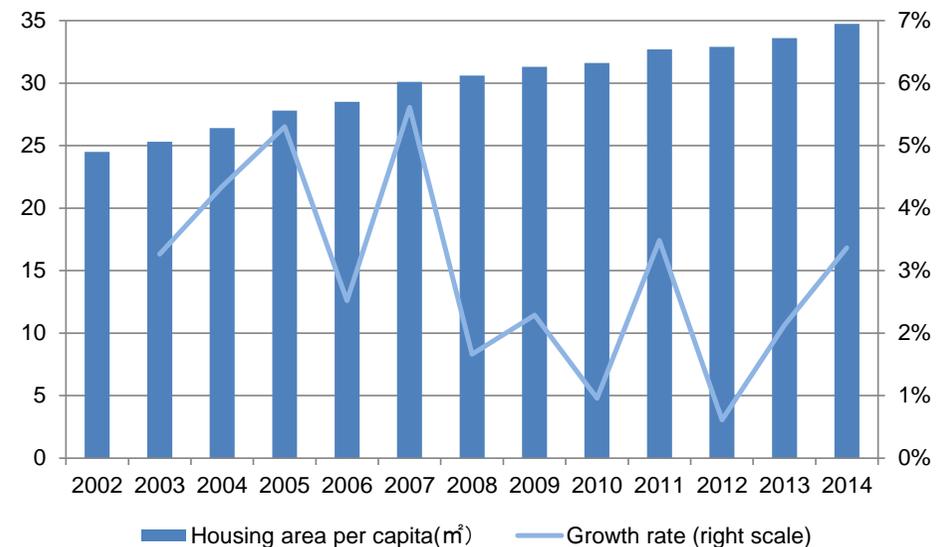
*Changes in construction area of new houses in urban areas*

(100 million m<sup>2</sup>)



*Changes in housing area per capita in urban areas*

(m<sup>2</sup> per capita)

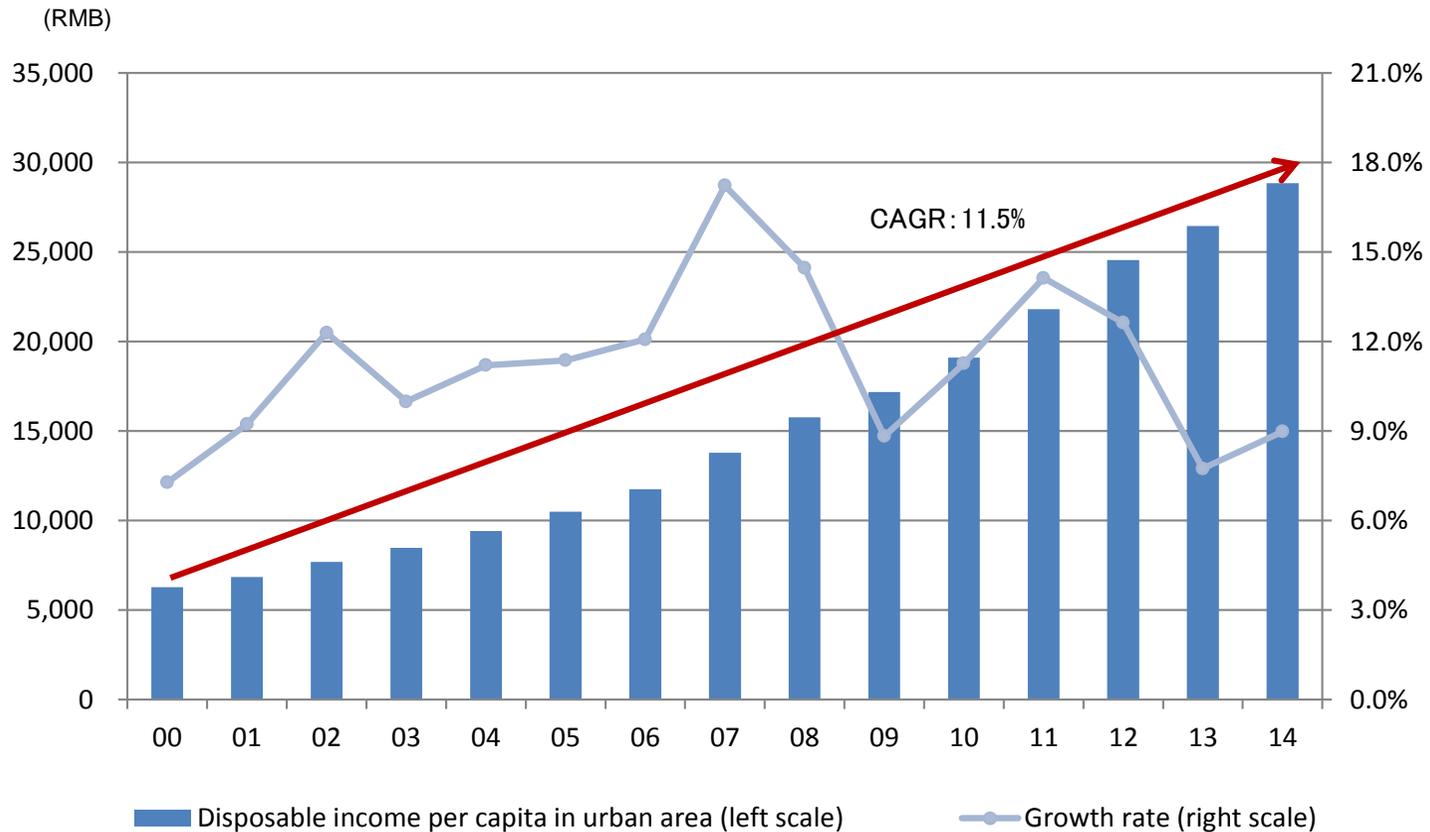


Note) Until 2012, public data from the National Bureau of Statistics is used, while the data of 2013 and 2014 used is published by MOHURD

## China's Macroeconomic Environment: Consumption Trend

**Average growth rate of disposable income per capita in urban areas has maintained at around 12% for the last 15 years, with this indicating robust consumer spending.**

*Disposable Income per Capita and Growth Rate in Urban Areas*



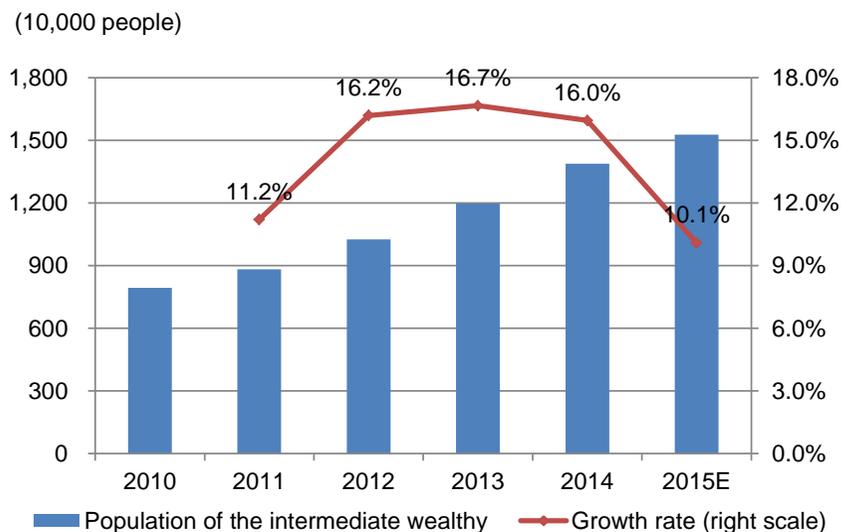
Source) National Bureau of Statistics of China

## China's Macroeconomic Environment: Consumption trend

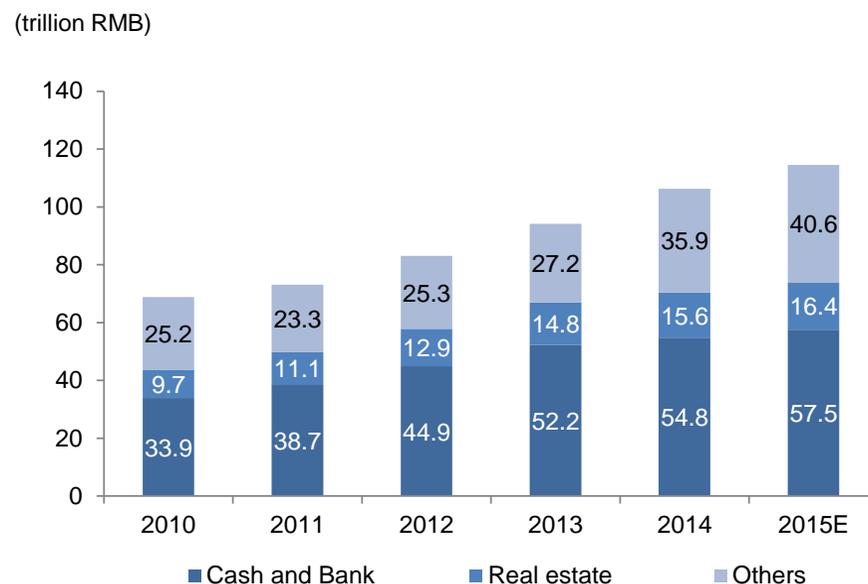
# Population of Intermediate Wealthy has been on a rise and approx. 15% of their assets are related to real estate investment.

- In 2014, the Population of the Intermediate Wealthy (with personal disposable assets of RMB 600,000 to 6 million) in China was approx. 13.88 million, about 1% of the total population.
- About 15% of the assets of the affluent population is related to real estate investment. This figure may increase in the future.

*Changes of affluent population in China*



*Changes of asset structure of affluent population in China*



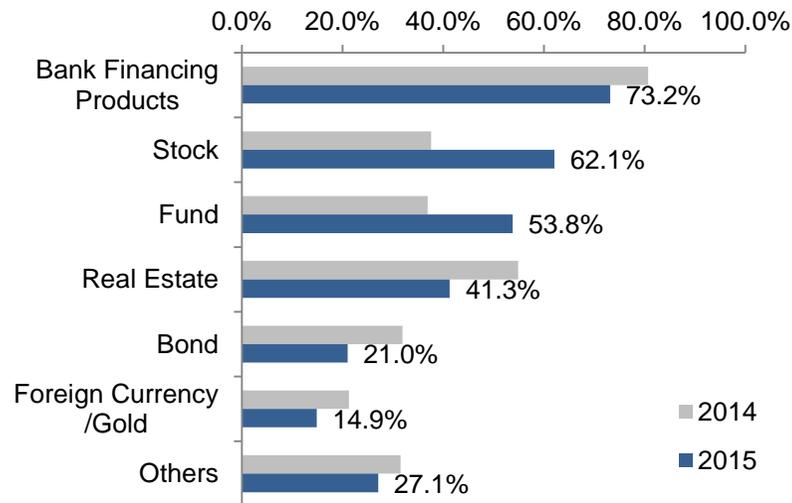
Note: "Population of Intermediate Wealthy" is defined as people whose disposable assets are RMB 600,000 to 6 million (which is 10.1 ~101.2 million Yen according to the exchange rate as of Friday, June 1, 2016)

## China's Macroeconomic Environment: Consumption trend

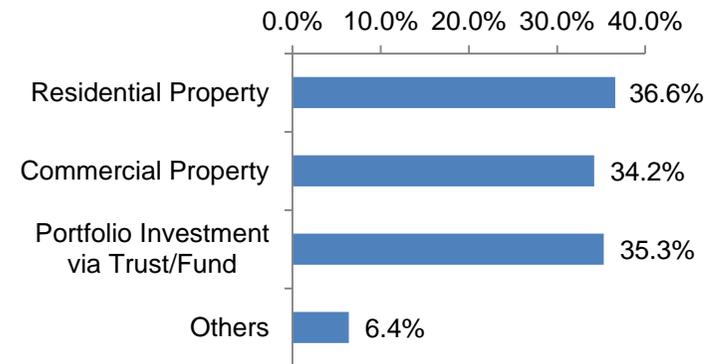
**In the second half of 2014, investment was affected by the sudden rise of China's stocks. In 2015, wealthy investors speculation towards stocks and funds were higher than the previous year; however, investment in real estate fell from second to fourth place.**

- In 2014, the popular investments for the Intermediate Wealthy were in the order of bank investment products (MMF etc.), stocks, funds and real estate.
- It is anticipated that investors will move towards direct investment such as future real estate investment mode, house purchase, commercial store purchase, and indirect investments such as risk aversion and tax avoidance via trusts and funds.

*Investment targets of the population of the intermediate wealthy in China (Comparison between 2014 & 2015)*



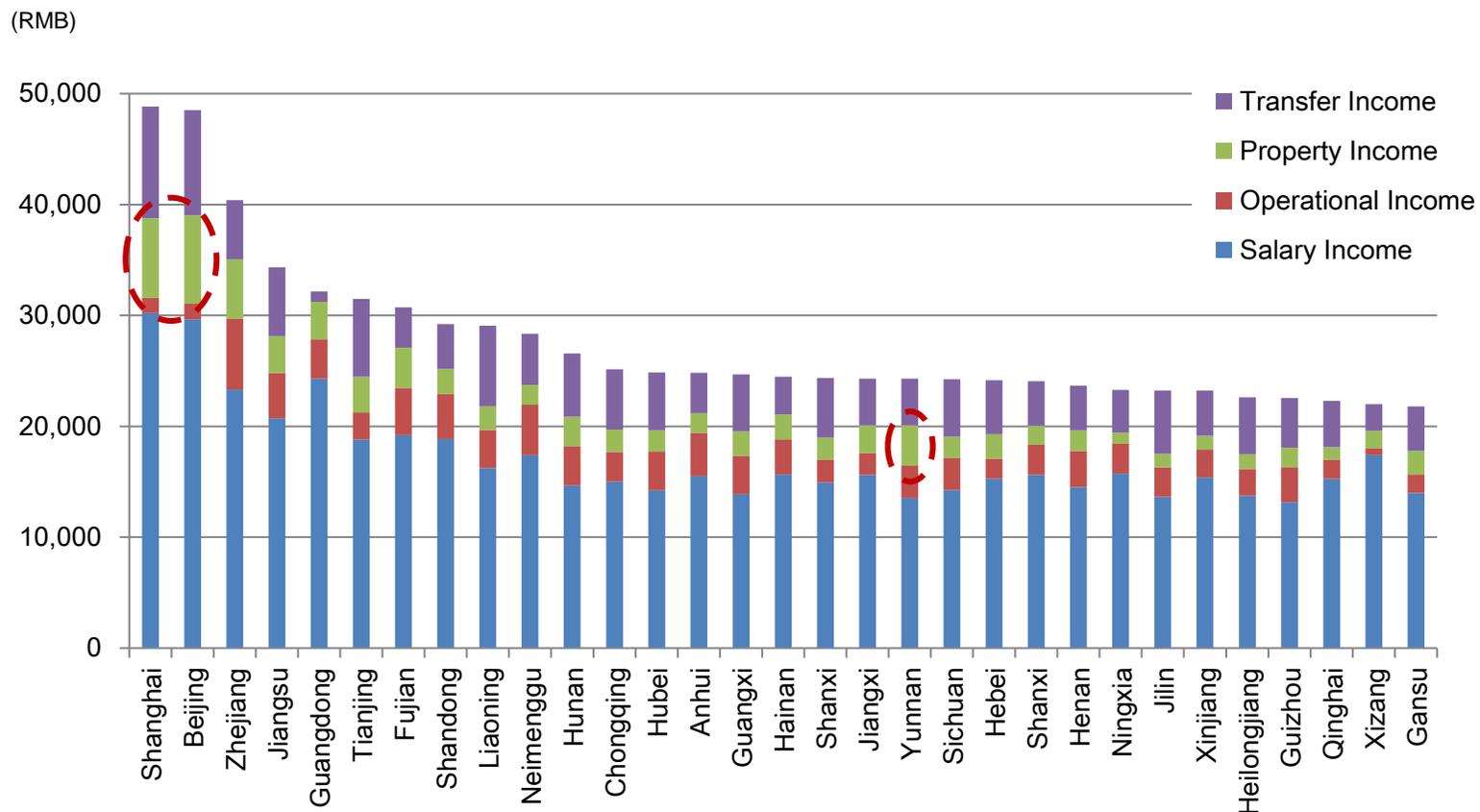
*Real estate investment methods that the population of the intermediate wealthy choose*



## China's Macroeconomic Environment: Consumption trend

Salary income and transfer income account for 62% and 17% in average household income per capita respectively. Beijing (16%), Shanghai (15%) and Yunnan (15%) show higher property income proportion.

Source of annual household income per capita of urban population by region (2014)



Note: Salary income: wage income.

Business revenue: revenue from commercial buying and selling activities.

Asset income: revenue from moveables and real estate.

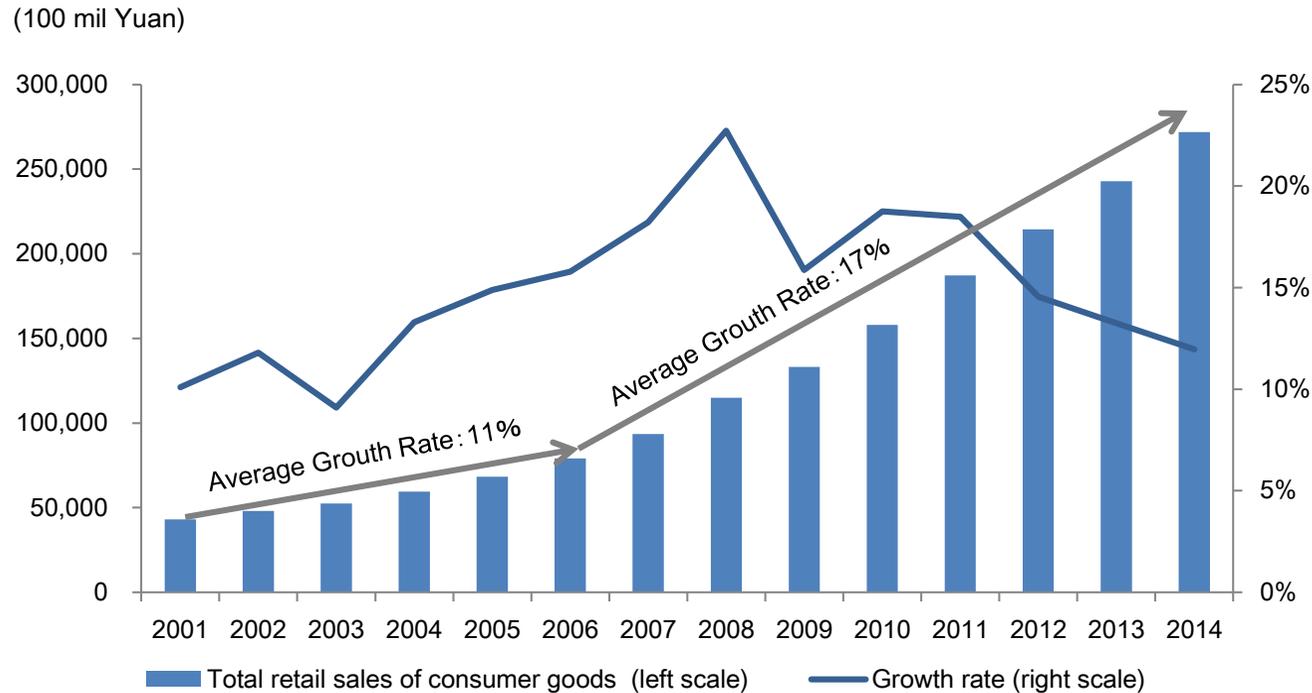
Transfer income: income from severance pay, pension etc.

Source: National Bureau of Statistics, China

## China 's Macroeconomic Environment: Consumption trend

Total retail sales of consumer goods has increased by more than 6.3 times between 2001 and 2014, and the average growth rate after 2007 reached 17%, which stimulated the demand for the construction of commercial facilities.

*Total Retail Sales of Consumer Goods and Its Growth Rate*



Source: National Bureau of Statistics, China

## China

Indeterminacy of market is rising cause of facing transition stage.

1 Macro Economy and Real Estate Investment

2 Real Estate Investment

3 Residential Market

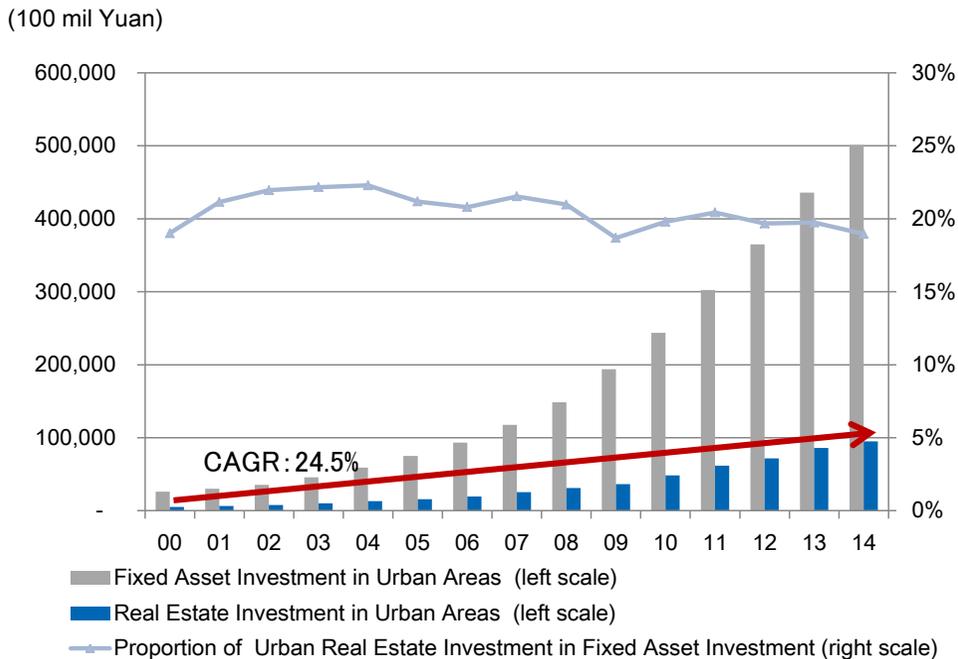
4 Commercial Development and Office Market

5 Movements of Chinese Real Estate Developers

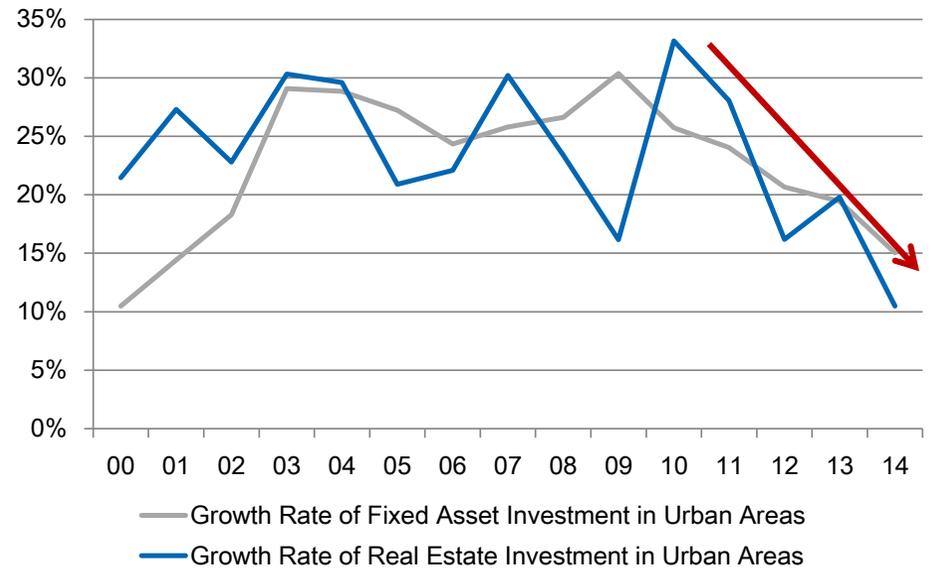
# China's Real Estate Investment

Urban fixed asset investment comprises approx. 20% of the entire real estate investment. After 2000, although the growth rate of real estate investment expanded by approx. 25% on average, the potential growth rate was slowed by the sluggish rise of fixed assets.

Changes of Fixed Asset Investment and Real Estate Investment in Urban Areas



Growth Rate Comparison of Fixed Asset Investment and Real Estate Investment in Urban Areas

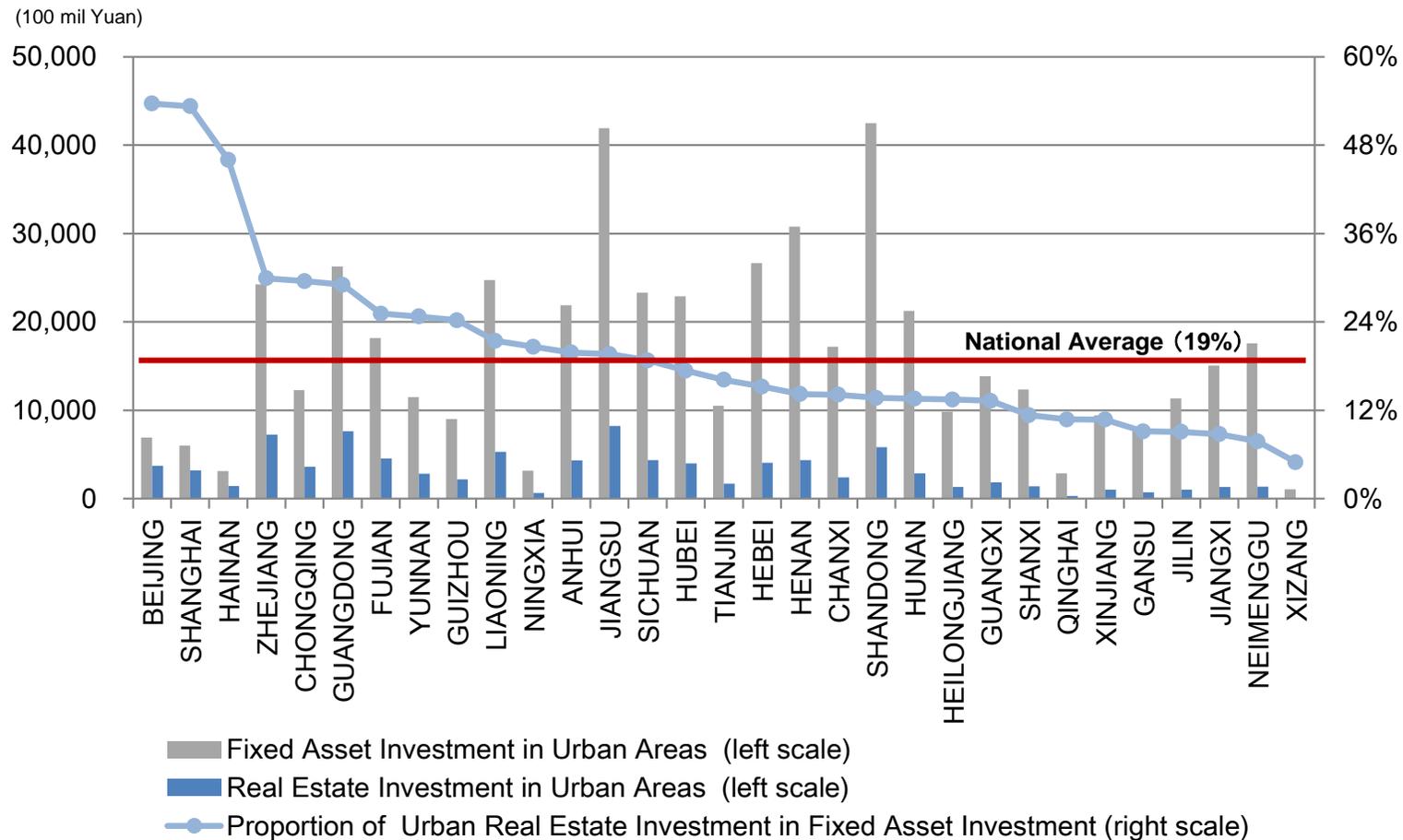


Source) National Bureau of Statistics of China

## China's Real Estate Investment

The ratio of real estate investment over urban fixed asset investments has scored over 50% in Beijing and Shanghai, followed by Hainan, Zhejiang, Chongqing and Guangdong which far exceed the national average of 19 %.

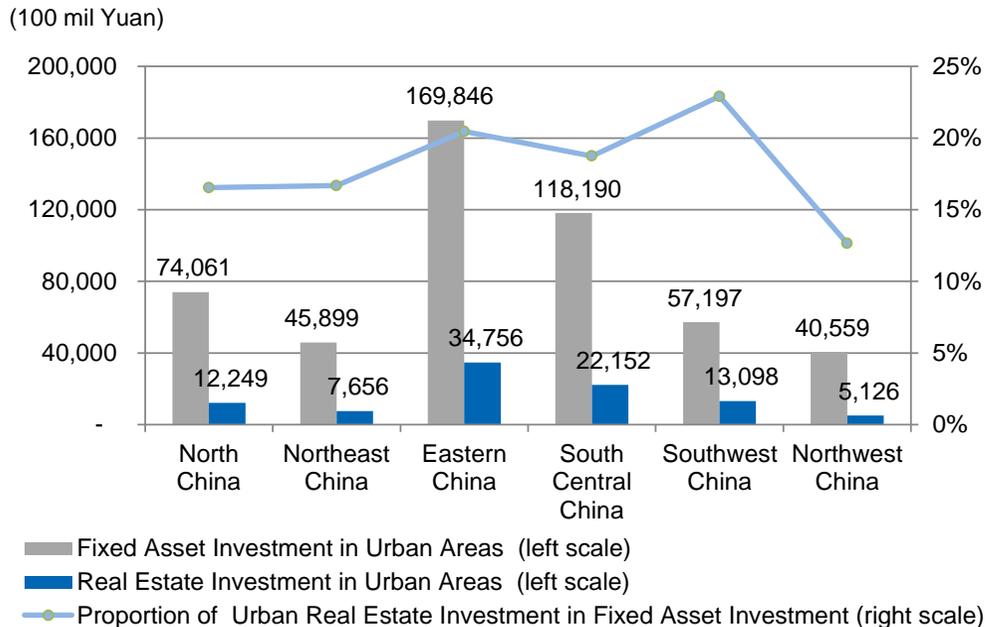
The Ratio of Real Estate Investment in Urban Fixed Asset Investment by Region in 2014



# China's Real Estate Investment

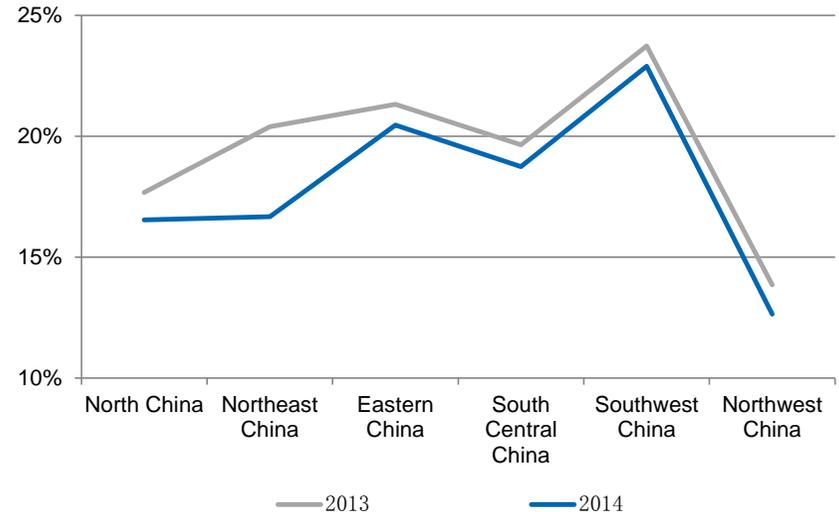
The most vibrant region for real estate investment is Eastern China, accounting for about 1/3 of total investment in China, while Southwest China started to be vibrant as well in recent years.

Comparison of Fixed Asset Investment and Real Estate Investment by Region in 2014



Note: North China: Beijing, Tianjin, Hebei, Shanxi, Neimenggu  
 Northeast China: Heilongjiang, Jilin, Liaoning  
 Eastern China: Shanghai, Jiangsu, Zhejiang, Anhui, Fujian, Jiangxi, Shandong  
 South Central China: Henan, Hubei, Hunan, Guangdong, Guangxi, Hainan  
 Southwest China: Sichuan, Guizhou, Yunnan, Xizang, Chongqing  
 Northwest China: Shanxi, Gansu, Qinghai, Ningxia, Xinjiang

Overtime Comparison of Growth Rate of Proportion of Fixed Asset Investment and Real Estate Investment by Region (2013-2014)

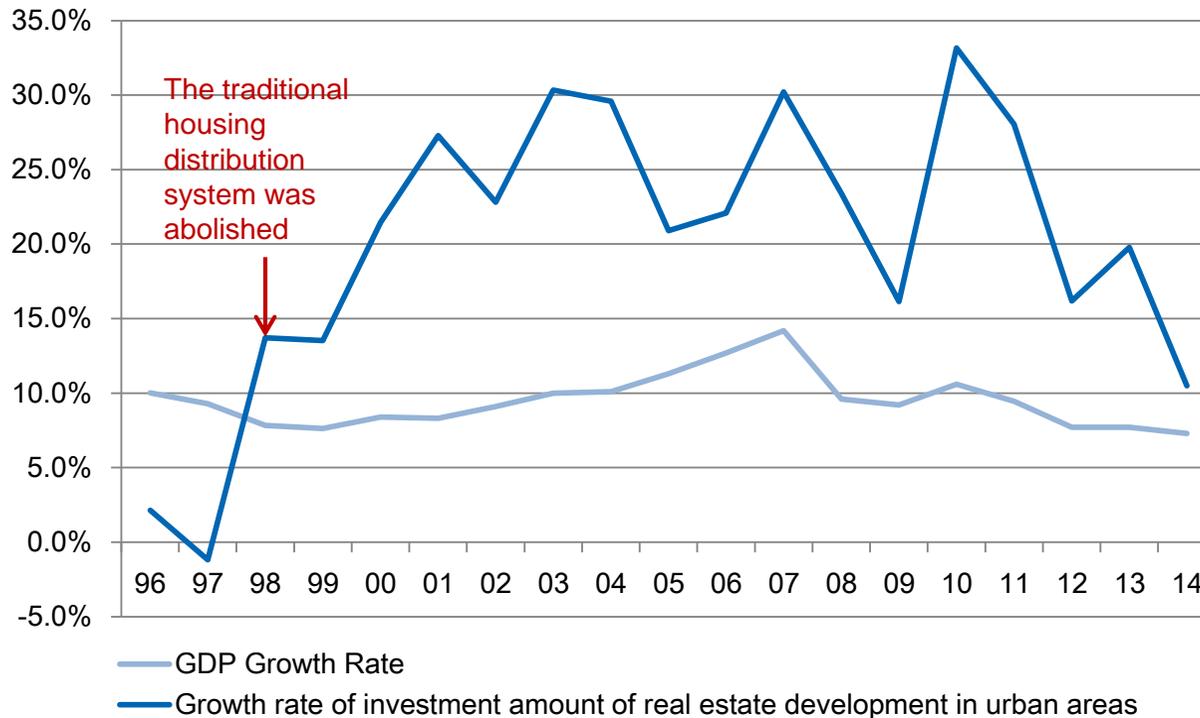


Source) National Bureau of Statistics of China

## China's Real Estate Investment

Since the Housing Distribution System was abolished in 1998, the volume of real estate investment in urban areas has increased, rigorously stimulating the country's GDP growth.

*Change in Growth Rates of GDP and of Real Estate Investment*

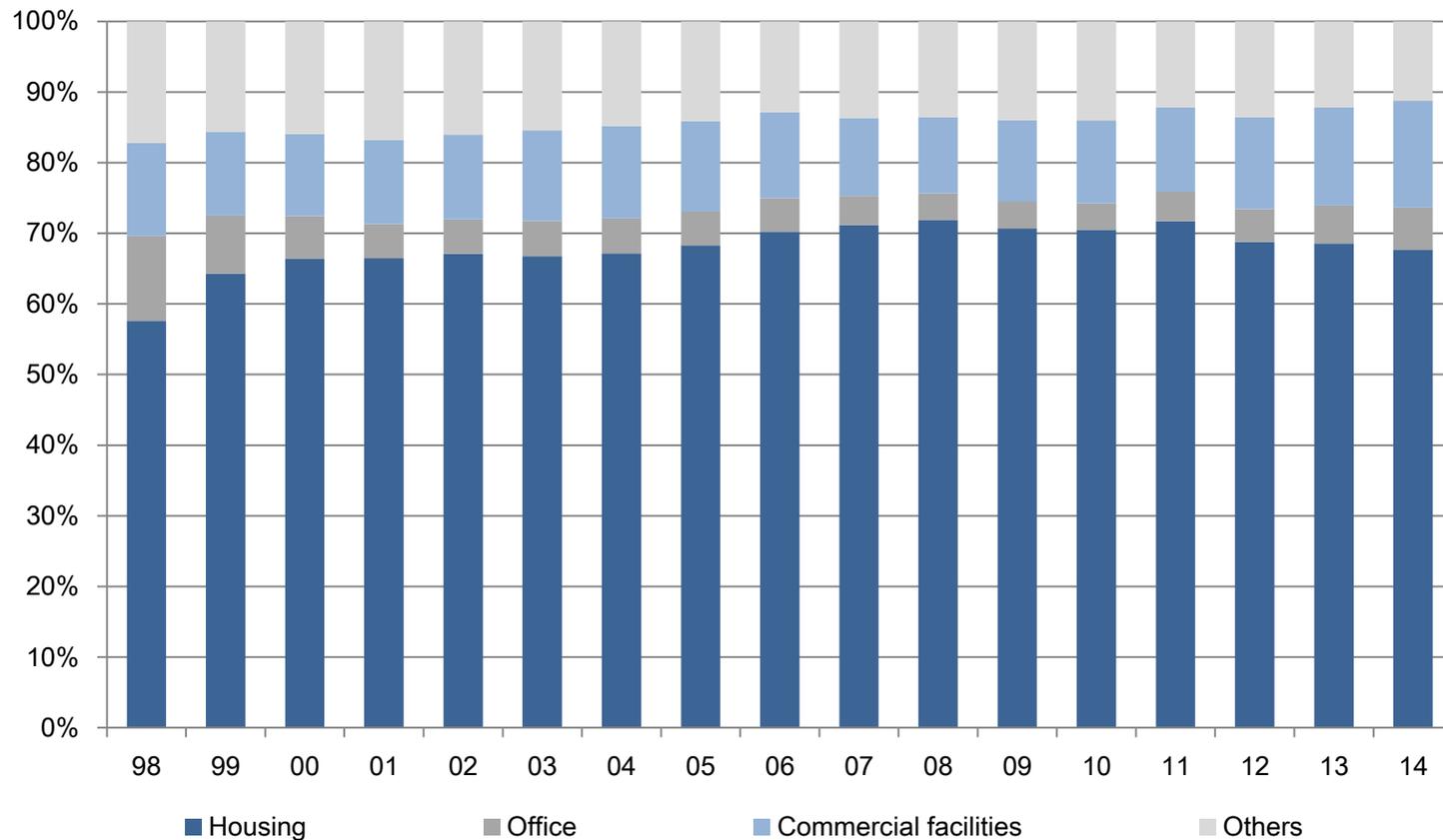


Source) National Bureau of Statistics of China

## China's Real Estate Investment

Housing investment comprises approximately 70% of the entire real estate investment, and commercial facilities are attracting more and more investment in recent years.

*The Percentage of Housing/Commercial/Office Investments in Real Estate Investment (2014)*



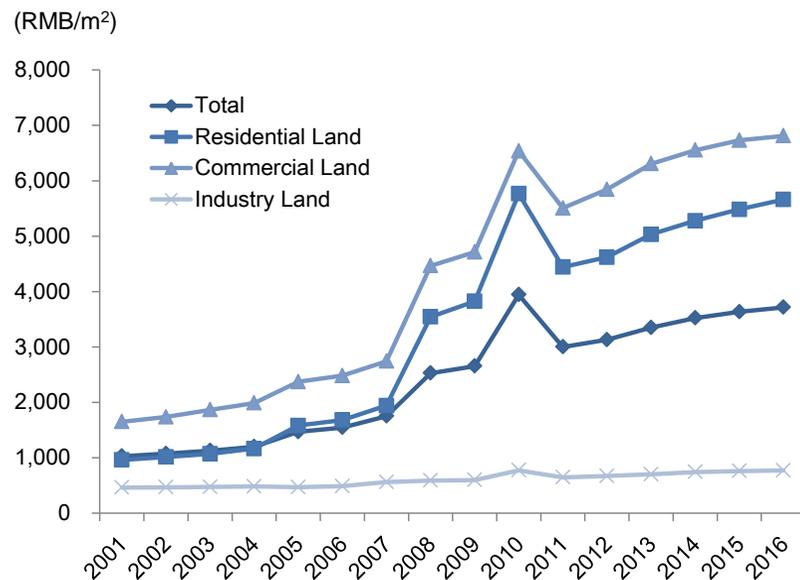
Source) National Bureau of Statistics of China

## Land Market in China

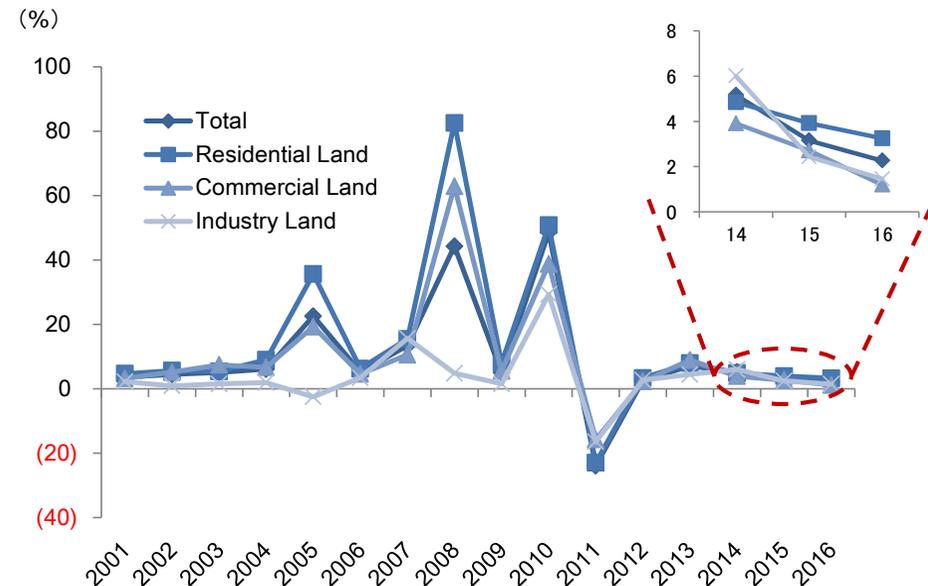
Due to policies on restraining the real estate market, the land price decreased once in 2011, followed by a gradual rise afterwards. The price rise of residential lands even in the recent economic downturn should be paid special attention.

- Land is owned by the government in China, although its management is led by local governments. As citizens are permitted to have land rights during a certain period, they can possess the ownership of buildings for a maximum of 70 years only if they purchase its land use rights through local governments.
- After the implementation of real estate constraining measures in 2011, the tendency that the price of commercial lands were higher than residential lands continued. Prices of residential lands and commercial lands rose greater than average, and in the most recent three years, recession has been battled by the growth of real estate as a whole focused around residential lands.

*Change in Land prices in urban areas of China*



*Change in Land price appreciation rates in urban areas of China*

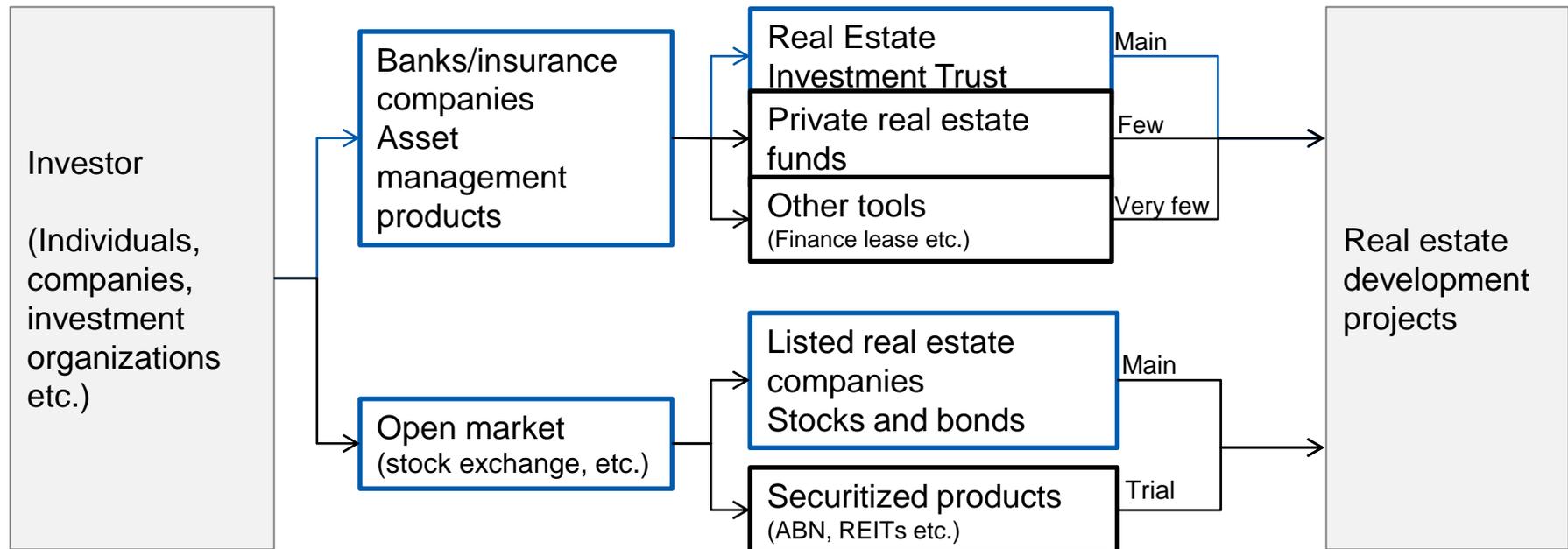


Source: China urban land price monitoring data

# In most cases, real estate investment projects in China are financed by the Real Estate Investment Trust through banks.

- The current real estate finance market in China features an extremely large primary market of housing loans but a very small second market. i.e. securitization market of mortgage loan that supports the primary market.
- Although there are almost 200 listed real estate development companies, few of them are utilizing private real estate funds or REITs.
- Since 2010, the central government reviewed its policies on the real estate market and limited direct financing from banks. As a result, stocks & bonds issued by real estate companies, investment trust and other tools also became main routes for investment in real estate projects.

### *Investment structure of Real estate finance in China*



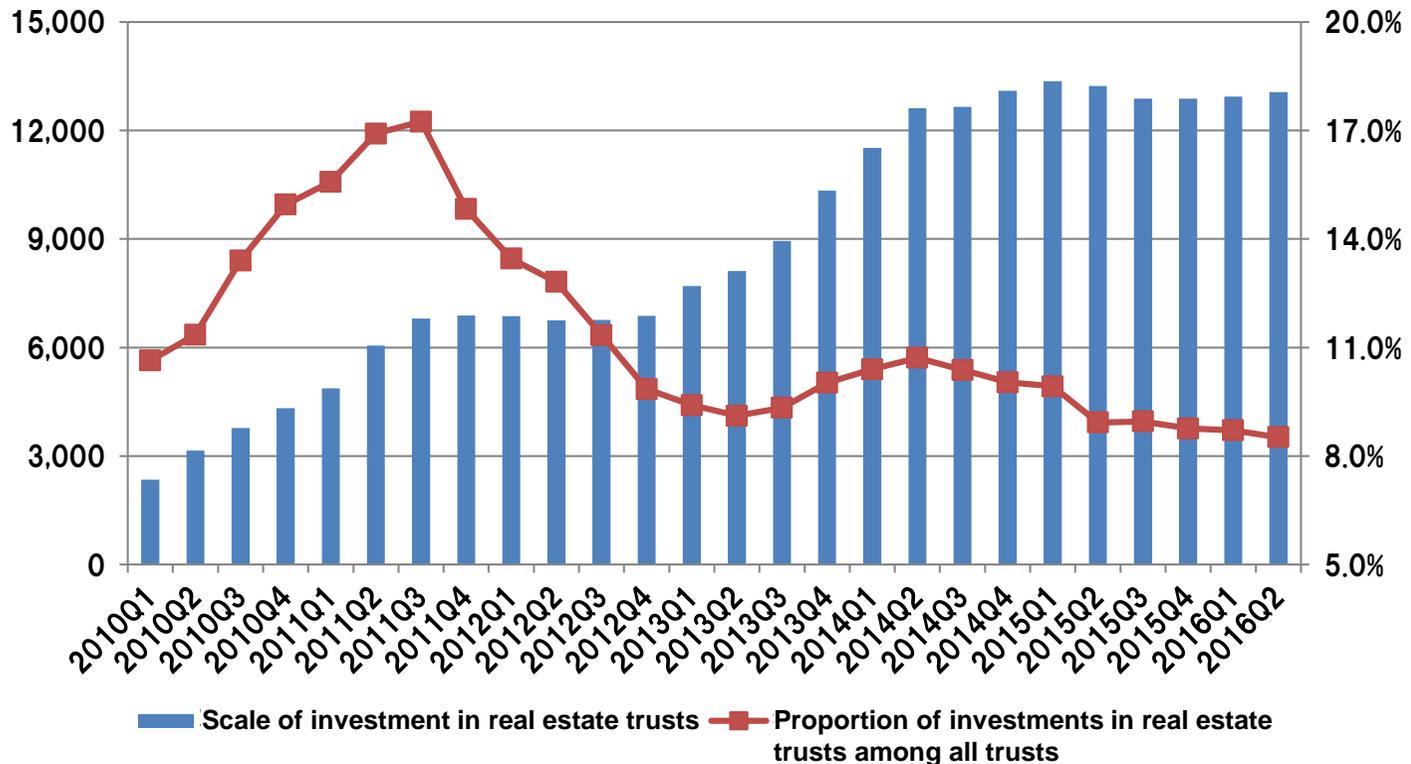
## China's Real Estate Investment

The scale of real estate investment trust in China was over RMB 1.3 trillion at the end of June 2016.

- The proportion of investments in real estate trusts among all trusts in China reached the peak in 2011Q3, but fell under 10% since 2014 and keeps decreasing.

*Changes in the scale of real estate investment trusts in China (2010~2014)*

(100 million RMB)



## China

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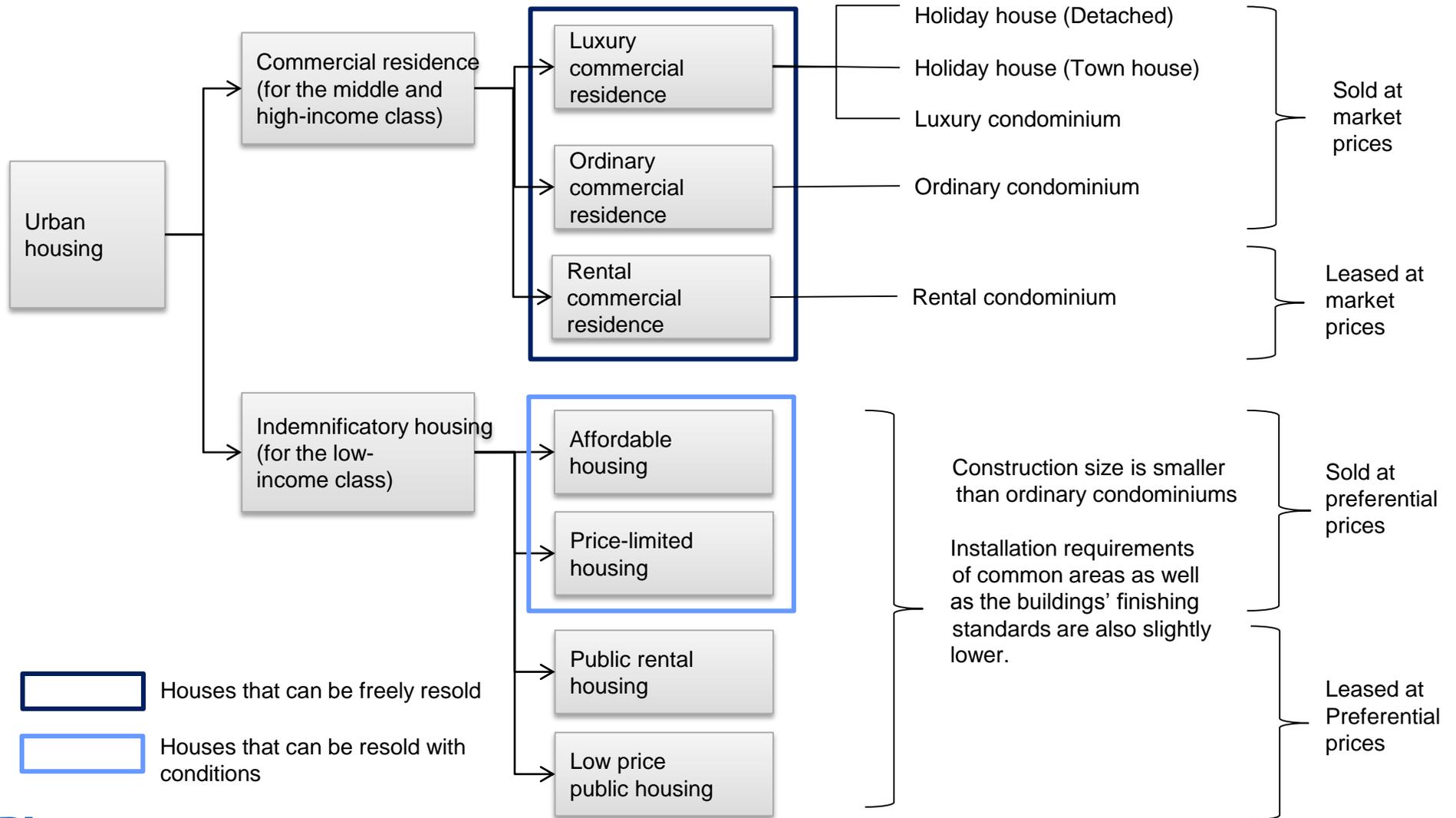
Commercial Development and Office Market

5

Movements of Chinese Real Estate Developers

# China's Residential Market

Houses in China's cities are mainly divided into commercial residential houses for middle and high income classes and indemnificatory housing for low-income buyers. Houses built for sale are typical; however, expansion of commercial houses for rental is expected.



**Indemnificatory housing consists of a) resalable “Affordable” and “Price-limited” housings, and b) unresalable “Public rental” and “Low price public” housing.**

- “Affordable” and “Price-limited” housing can be resold only in cases where conditions set on the resale of each housing type are met.

*Overview of indemnificatory housing*

Classification	Description	Resalable or not
Affordable housing	<ul style="list-style-type: none"> <li>• In order to achieve an affordable price for the low-income population, the government provides developers with various preferential treatments such as providing land at a preferential price, diminishing their tax, contribution for urban infrastructures development and various administrative business expenses.</li> <li>• Sizes are strictly controlled; e.g. medium-sized: around 80 m<sup>2</sup>, small-sized: around 60 m<sup>2</sup>.</li> <li>• Families with the right to purchase are those with a local household register as well as with an income of 60,000 Yuan or less.</li> </ul>	<ul style="list-style-type: none"> <li>• Houses are resalable but only after five years have passed since the purchase.</li> <li>• Purchaser possesses its limited ownership.</li> </ul>
Price-limited housing	<ul style="list-style-type: none"> <li>• Used as one of the government’s measures to control the real estate development market and to adjust the housing supply for a certain period.</li> <li>• State-owned companies take responsibility in its construction.</li> <li>• Its selling prices are determined by the government and are usually 20–25% lower than commercial residences.</li> </ul>	
Public rental housing	<ul style="list-style-type: none"> <li>• Leased by the government or institutions in its commission to low and middle-income families at market prices</li> <li>• The government provides a certain amount of housing allowance to its occupant families every month.</li> </ul>	<ul style="list-style-type: none"> <li>• Houses cannot be resold and only can be leased.</li> <li>• Occupant does not possess its ownership.</li> </ul>
Low price public housing	<ul style="list-style-type: none"> <li>• Leased to low-income families at the lowest lease price determined by the government.</li> <li>• Provided sizes: 35 m<sup>2</sup> for 1LDKs, 45 m<sup>2</sup> for 2LDKs, and 55 m<sup>2</sup> for 3LDKs.</li> </ul>	

# Affordable housing can be provided at a cheaper price than ordinary commercial housing, as the price is set according to costs.

- It should be noted that affordable housing is sold under “Allocated land usage rights,” which does not require the payment of land grant charges to the government, and that the percentage of profit allocated to developers from its development is politically controlled under 3% or less.

*Comparison of price structure between ordinary commercial housing and affordable housing*

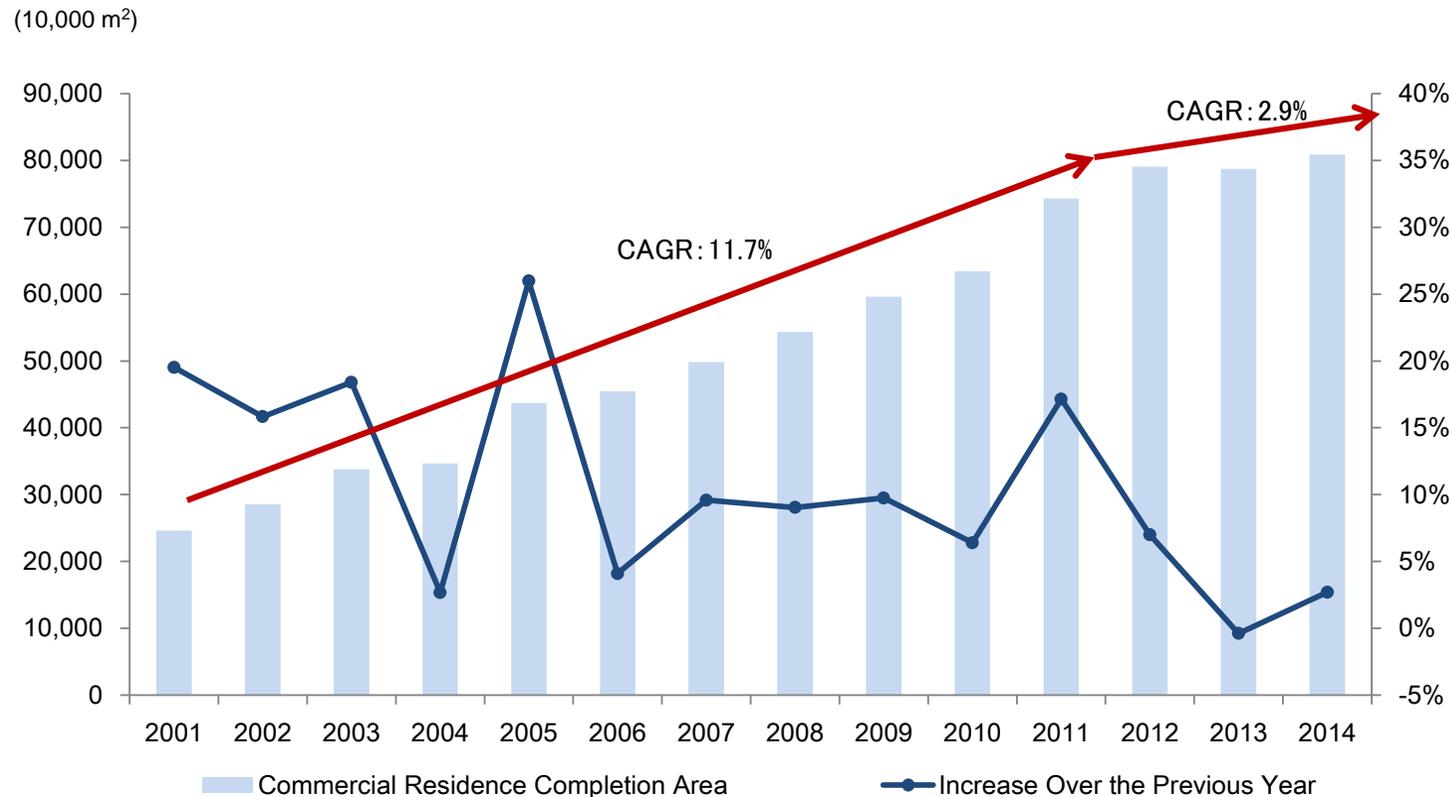
Cost structure item	Ordinary commercial housing	Affordable housing
Eviction/compensation costs	○	○
Planning/designing costs	○	○
Construction costs for infrastructure within the housing	○	○
Construction work costs for buildings and equipment	○	○
SG&A	○	○
Tax	○	○
Profit	Unlimited	3% or less
Land grant charge	○	×
Land right type	Land grant usage rights	Allocated land usage rights

## China's Residential Market

Since the housing demand in urban areas is hovering at a high level, the supply of commercial houses shows an upward trend. After 2011, due to the effect of real estate constraining policies, the average yearly growth dropped from 11.7% to 2.9%.

- During the 10 years to 2011, there was a period in which the supply speed of commercial housing slowed down due to a tightening or adjustment of policy. Needs for housing, however, expanded, and the completed area was raised by a high average growth rate of 11.7%, though due to successive real estate constraining policies after 2011, the growth rate dropped to 2.9%.

*The area of commercial residences' completion in China*

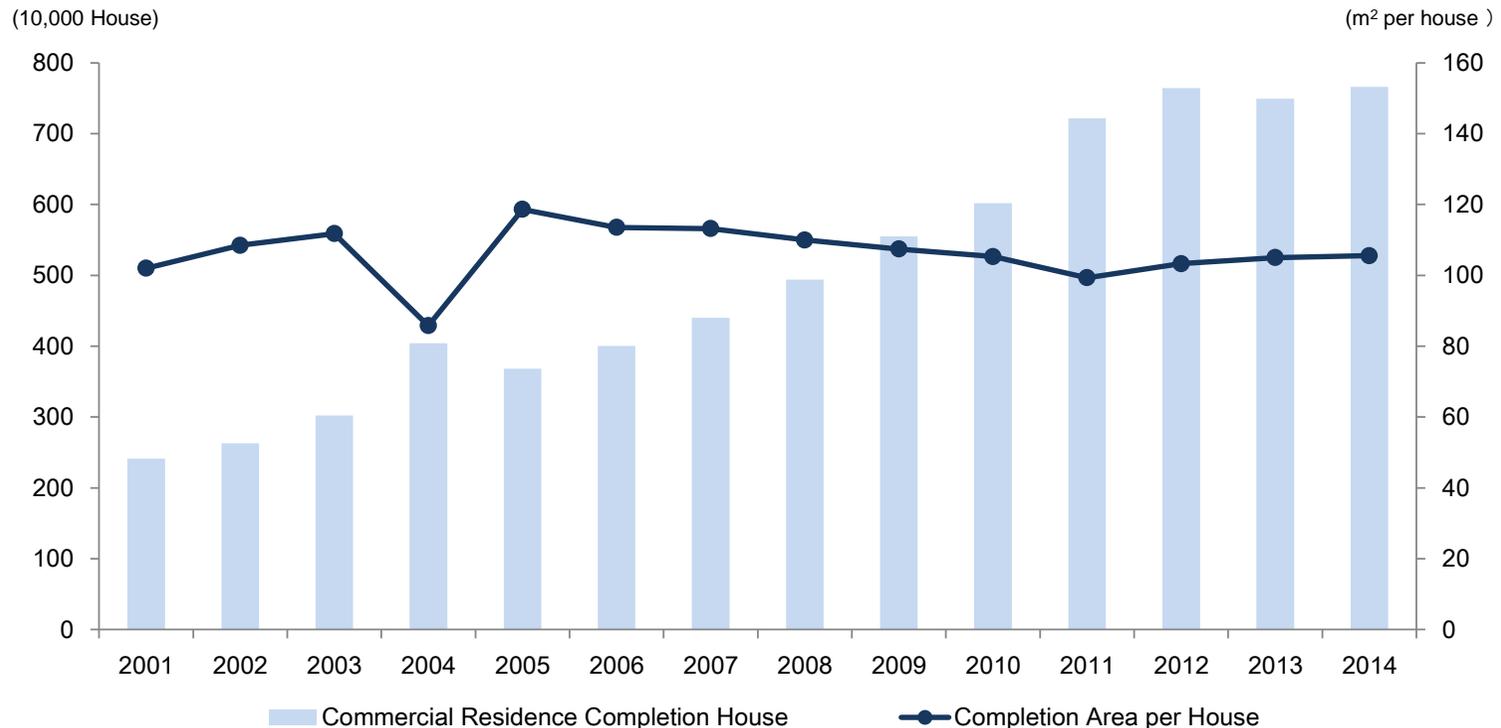


## China's Residential Market

**7.66 million commercial units are supplied annually in China's urban areas, with this being over 30 times larger than the number of houses supplied annually for sale in Japan.**

- The number of newly completed commercial residences in China in 2014 was 7.66 million, over 3 times larger than that of 14 years ago (2.14 million in 2000), regaining the 2012 level, and 32.5 times larger than the supply of houses built for sale in Japan (236 thousand) in 2014.
- Typical commercial houses have a layout of 2LDK or 3LDK with a completion area of approx. 105 m<sup>2</sup> due to a trend toward nuclear families.

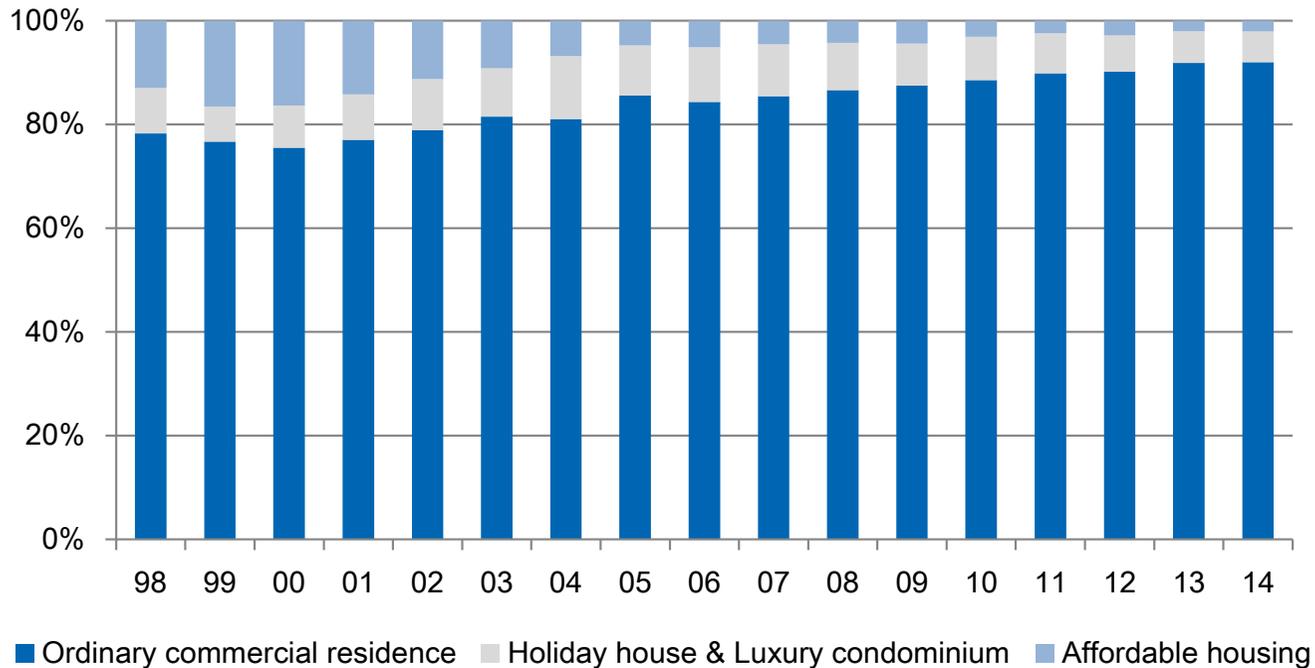
*The number of commercial residence completions and transition of its average completion area*



## Residential Market in China

Approx. 90% of commercial housing investments are made in ordinary commercial residences, while the investment toward “affordable housing” for the low and middle income class is in extremely short supply (less than 5%).

*Changes of the Ratio of Housing Investment by Type*



Note: Since numbers related to affordable housing after 2010 is not provided in the China Statistical Yearbook, the data here was calculated from the selling price and actual construction households.

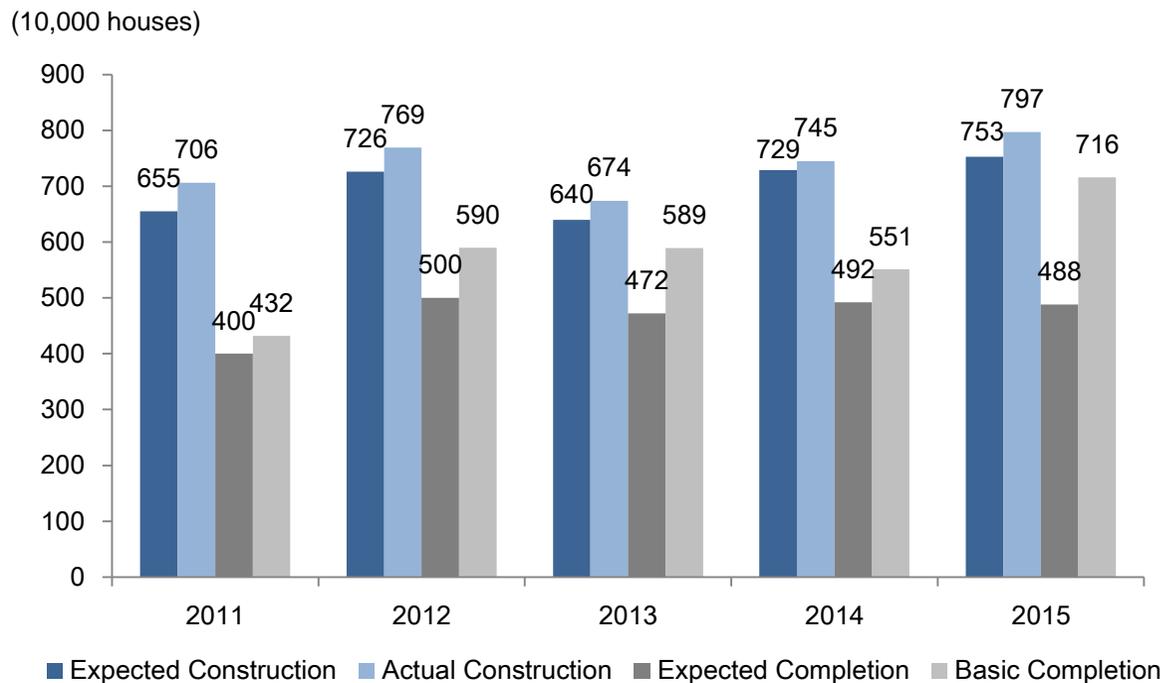
Source) National Bureau of Statistics of China

## Residential Market in China

To improve the housing conditions of the low- and middle-income population, the government accelerated provision of affordable housing in 2011.

- In its 12th five-year planning (2011-2015), the Chinese government planned to build 36 million new affordable houses. The purpose is to accelerate the provision of public housing. The government aims to build more low-rent houses and economically affordable houses for the low-income population and increase the supply of low-cost housing.
- According to public data of CNAO, 78% (approx. 29 million) of 37 million affordable houses have been completed by the end of 2015. Not only is the initial goal achieved, but it is also quite an accomplishment within such a short period of time.

*Construction plan and actual completion of affordable housing (2011~2015)*



2011-2015 TTL (Unit: 10 <sup>4</sup> houses)	
Actual Construction	3,691
Basic Completion	2,878
Basic Completion Ratio	78%

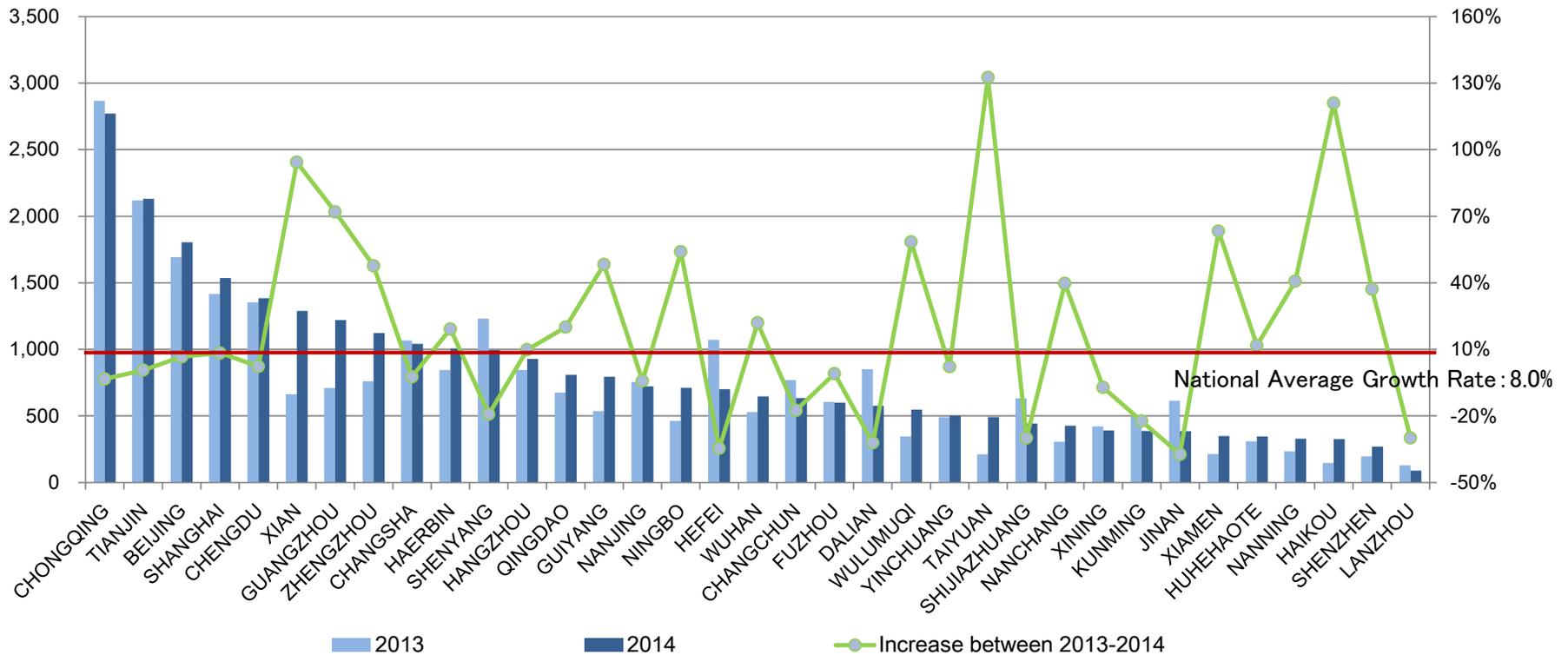
Source: CNAO

## Residential Market in China

About one third of the entire housing building area (33.5%) is concentrated in Chongqing, Tianjin, Beijing, Shanghai and Chengdu. The growth of second-tier cities such as Xian, Taiyuan and Haikou is also attracting attention.

Comparison of Areas of Completed Residential Properties among Major Cities

(10 thousand m<sup>2</sup>)

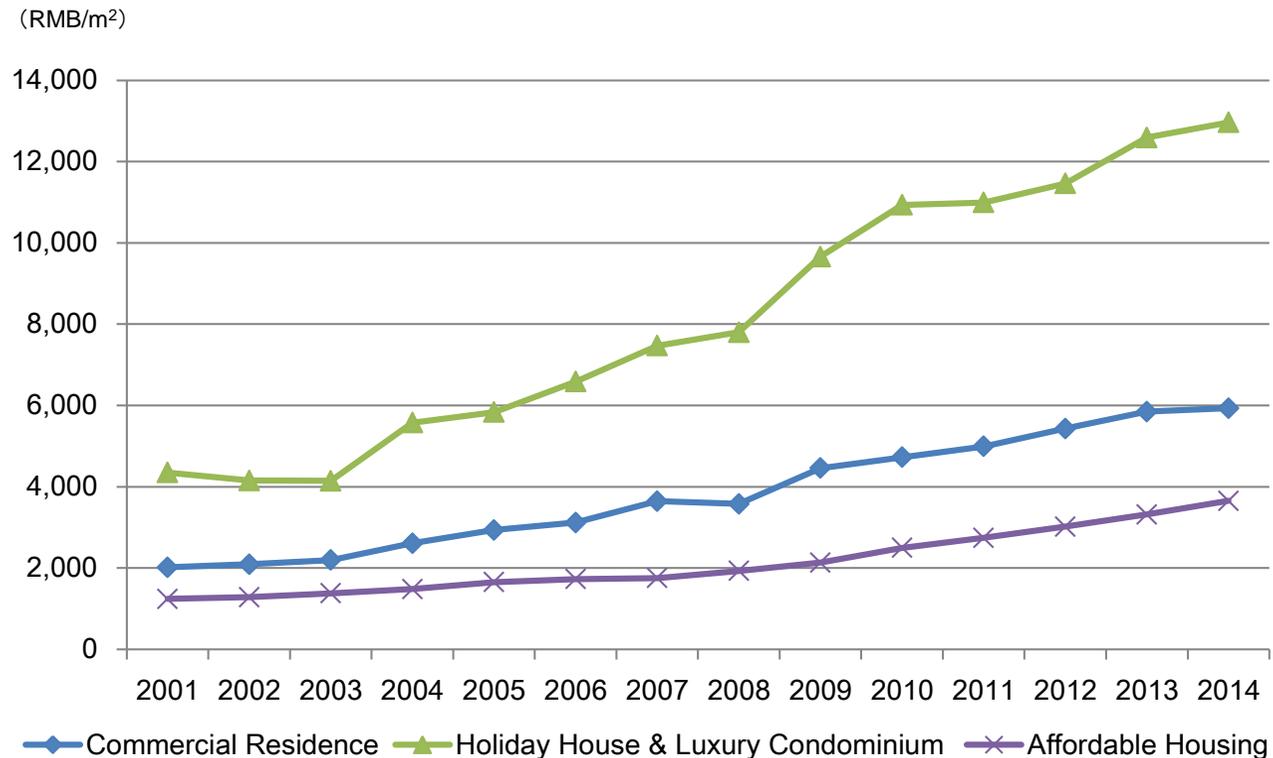


Source) National Bureau of Statistics of China

## China's Residential Market

The selling price of commercial residences has risen by 2.9 times during the last 13 years, with this trend being especially evident among luxury properties.

*Selling price of commercial residences in China*

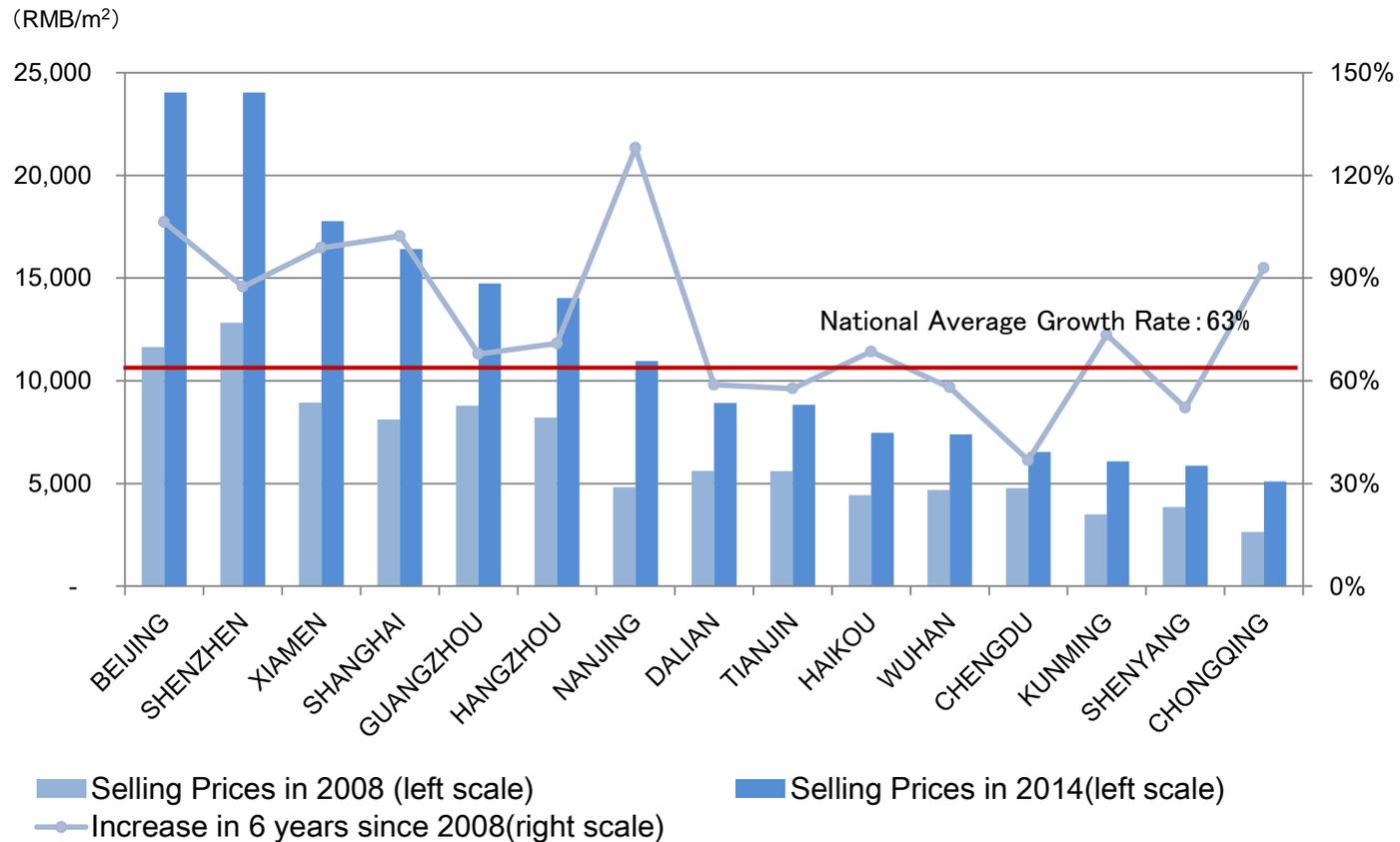


\*Since sales prices of the economical housing for low-and-middle income earners in 2011 were not reported in the China Statistical Yearbook 2012, the data here was calculated on the basis of data in 2010 by CAGR at 110%.

Source) National Bureau of Statistics of China

## Sale price of residential properties has risen by more than 60% in the last 6 years

Sale Price of Commercial Housing in Major Cities (Comparison between 2008 and 2014)



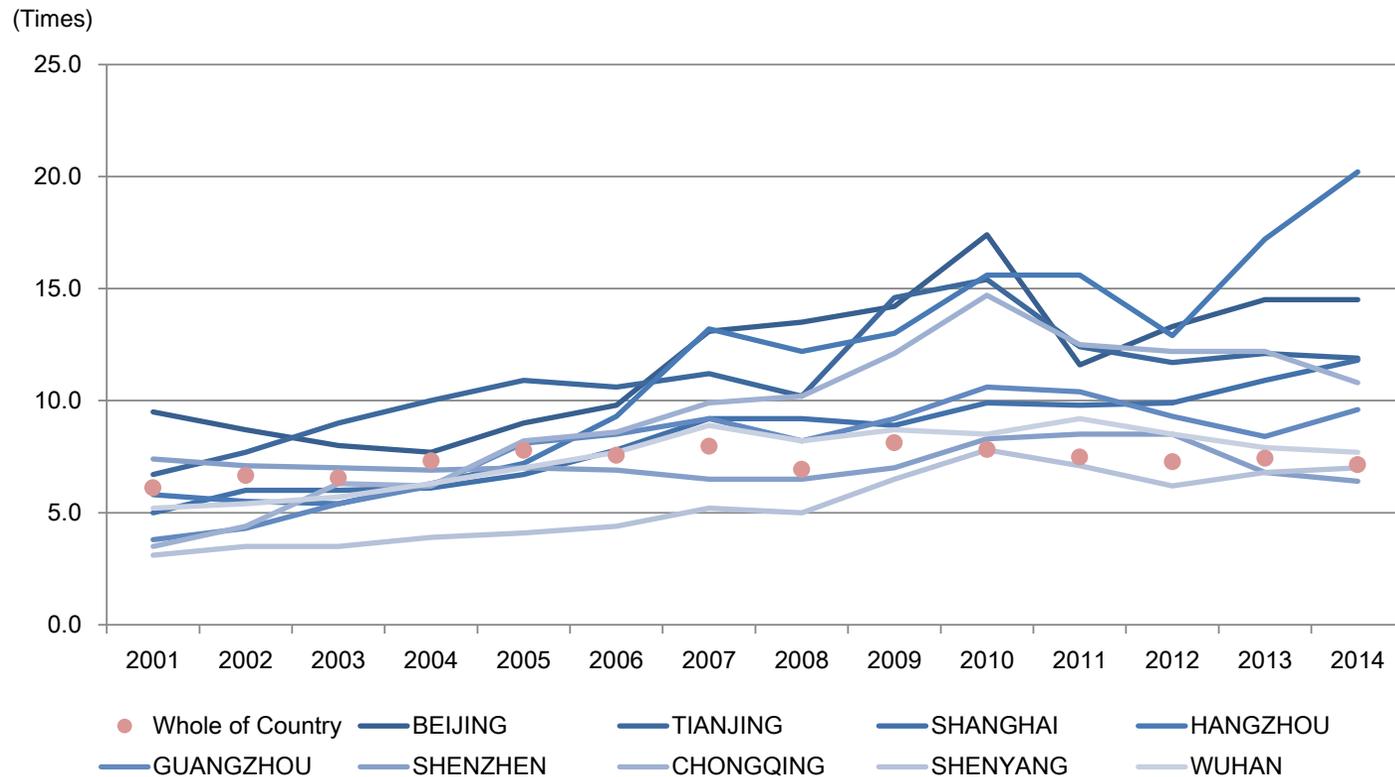
Source) National Bureau of Statistics of China

## China's Residential Market

Housing price to income ratio is over 10 times in Beijing and coastal metropolises, such as Shen-zhen, Shanghai, Guangzhou and Hangzhou, significantly exceeding the national average.

- Housing price to income ratio has risen 6 to 8 times in 13 years.
- Ratio in metropolises has risen significantly, with Shenzhen seeing a rise from 5.8 times to 20.2 times.

*The housing selling prices to income ratio*



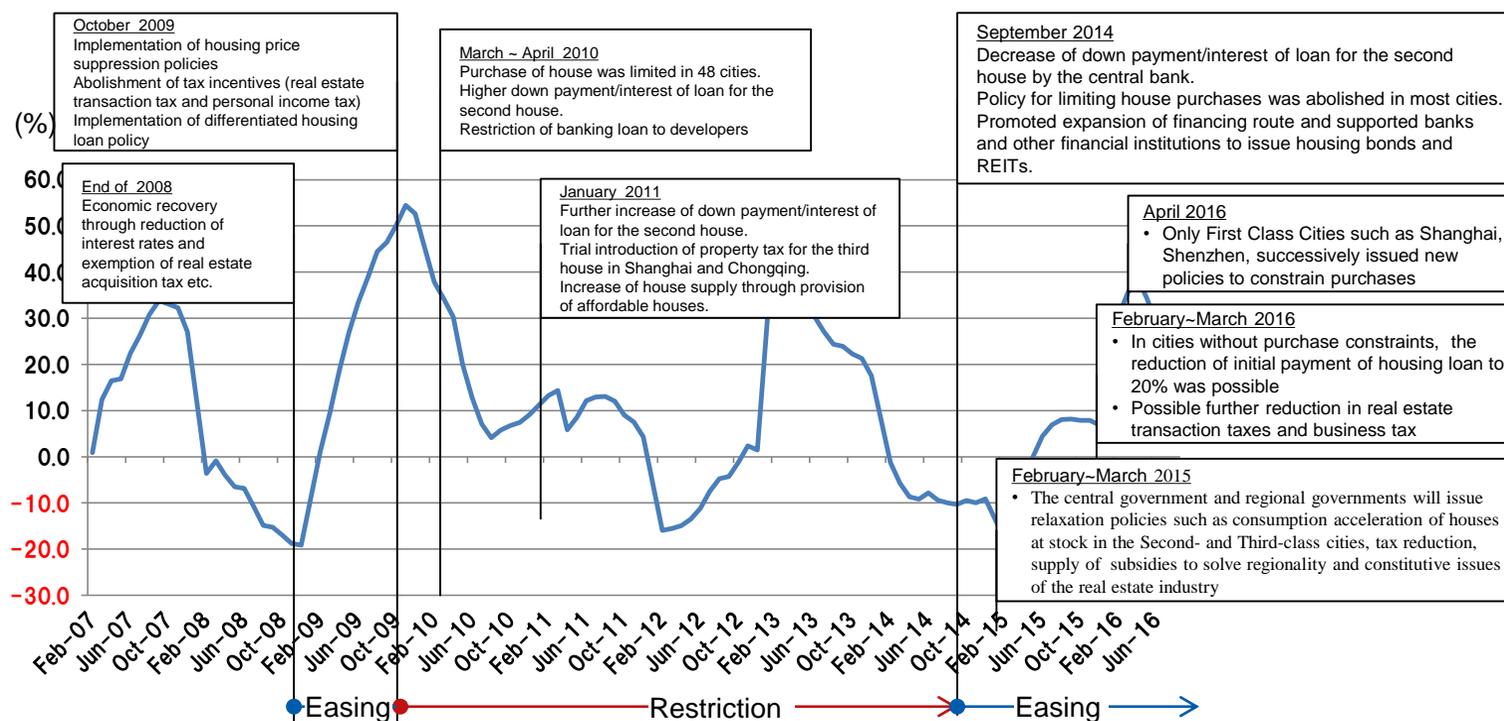
Source: Statistical material by the Ministry of Land and Resources and the National Bureau of Statistics

## House supply policy of China

Although the policy implemented by the government from 2009 had some effects in reducing housing prices, it caused an increase in the of stock of houses and deterioration of the overall market conditions. This is why the government implemented an easing policy in 2014.

- Monetary easing policies were implemented after the Lehman shock resulted in skyrocketing housing prices in Beijing, Shanghai, and other major cities in China. As a countermeasure, the Chinese government implemented a series of policies that made it more difficult for the acquisition of houses after October 2009.
- However, since such policies resulted in an increase of the stock of houses and deterioration of the overall market conditions, after 2014, the government issued a series of housing relaxation policies, which had a sound effect on the consumption of stocked houses.
- Now in 2016, constraining policies focusing around “First Class Cities (Shanghai, Beijing, Guangzhou, Shenzhen)” were maintained; in most of the “Second Class Cities,” the constraining policies were canceled, and the rebounding of residential housing due to the arrival of a housing acquisition boom is anticipated.

*Monthly sales price of commercial housing compared with that of the same month in the previous year (after 2007)*

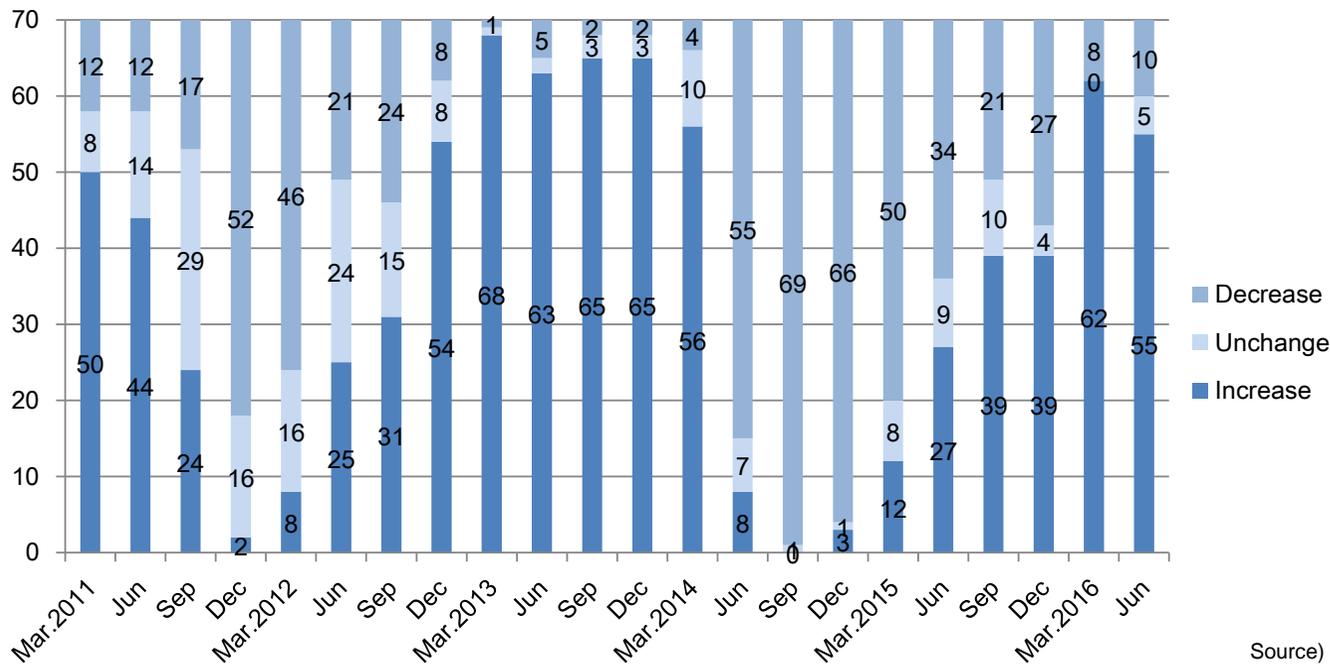


## Government Housing Policy in China

Although real estate relaxation policies to solve the housing stock problem resulted in the decrease of a housing price temporarily, it was unable to stop the rising price of housing again due to the housing acquisition boom.

- Since the issuing of the regulatory plan, the property developers were led to cut the housing prices to encourage sales, and an increasing number of cities witnessed a decline of housing prices since September 2011. This demonstrates that the government's restrictions have been effective in bringing down housing prices.
- However, housing prices began to rise in more than 90% of the major cities in 2013. The growth rate is more than 20% in the four major cities, Beijing, Shanghai, Guangzhou and Shenzhen, with the rate being the highest in history. There lies an acute risk of bubbles.
- After Sep. 2014, to solve the stocked housing problems, a series of relaxation policies were issued in the Second- and Third-class cities, and the price of housing suddenly decreased; from the second half of 2015, the rise in the price of housing occurred in many cities due to the housing acquisition boom.

*The change of cities' number with the housing price's deviation at the link relative ratio in the 70 major cities of China (2011-2016)*



Source) National Bureau of Statistics of China

## Government Housing Policy in China

To solve the difficulty in housing acquisition due to the rise of housing prices, the government issued policies to permit housing for rentals in 2016; thus, there is a prospective expansion of rental housing.

Excerpt of “Opinion concerning the cultivation and development of the housing rental market by the State Council (issued on June 3<sup>rd</sup> 2016)

- Further permit lands for commercial housing as residential housing.
- In case of rebuilding commercial buildings into housing for rental, if the use of lands and bulk ratio doesn't change, the use of lands may change from commercial to residential; after the change, the same use standards may apply concerning fees of water, gas and electricity.
- If the fireproof function doesn't change, existing housing may be refurbished to rental housing.
- Real estate development enterprises that start housing rental and housing rental service enterprises are encouraged.



### Movement of representative enterprises concerning the rental housing business

Classification	Representative enterprises	Concerning each enterprise's rental housing business
Real estate development enterprises	Vanke	• In May 2016, a rental housing brand called “Port Apartment” was launched; rental housing in more than 10 cities was started. In 2017, the total of 150,000 rental houses was the business target.
	Leasing	• In 2016, 3 types of rental housing brands were built, managing rental housing of 600,000 square meters. During 2 years between 2017-2018, a business arrangement completion in the first class and 1.5-class cities and a supply of over 1 million m <sup>2</sup> rental houses are targeted.
Real estate agency	Linkworld	• In July 2016, policies “to raise funds of 2 billion RMB, to invest in rental housing” were issued. There is a schedule to build 130,000 rental houses in the first class and second class cities.

## Prospects of China's residential market

In China's residential market of 2016, together with requirements for relocation and rise of rental needs, supply of housing for improvement is the focus.

### Directions of China's residential market in 2016

1

Further soaring of the first class cities' housing price, segmentation of the second class cities' housing market, difficulty of consuming stock housing of the third-class and fourth class cities.

In the future, as the availability for people returned from the first class cities and people flowed out from third class and fourth class cities, the supply of city housing in the second class cities might become a major battlefield.

2

New housing needs and plan improvements due to spread of "Two-child" policy.

Due to rise of the housing ownership rate and relocation needs, in the future, housing development for relocation and improvement, and product lineup are desired.

3

Difficulty in housing acquisition due to soaring cost of housing in big cities, rise of housing rental needs focused on the youth.

In future, small-scale expansion of rental housing supply around the first class and second class cities is anticipated.

## China

Indeterminacy of market is rising cause of facing transition stage.

1 Macro Economy and Real Estate Investment

2 Real Estate Investment

3 Residential Market

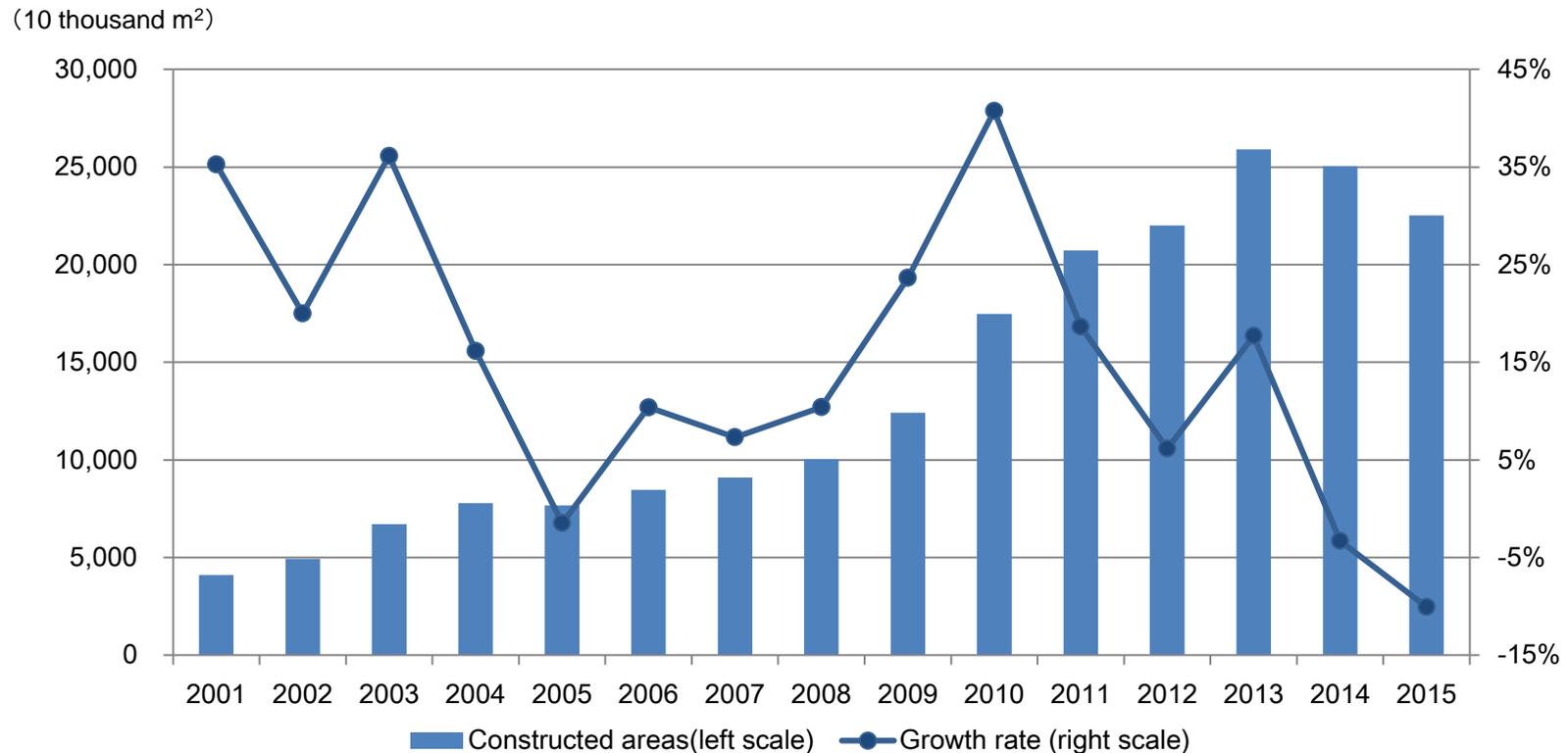
4 Commercial Development and Office Market

5 Movements of Chinese Real Estate Developers

## China's Commercial Real Estate Market :Commercial Facility

The commercial development boom in large cities started in 2008, and after 2013, the slowing of consumption growth due to the economic downturn and the effect of EC thrust etc., led to a trend of decreasing supply.

*Change in Nationwide Commercial Facilities Supply*

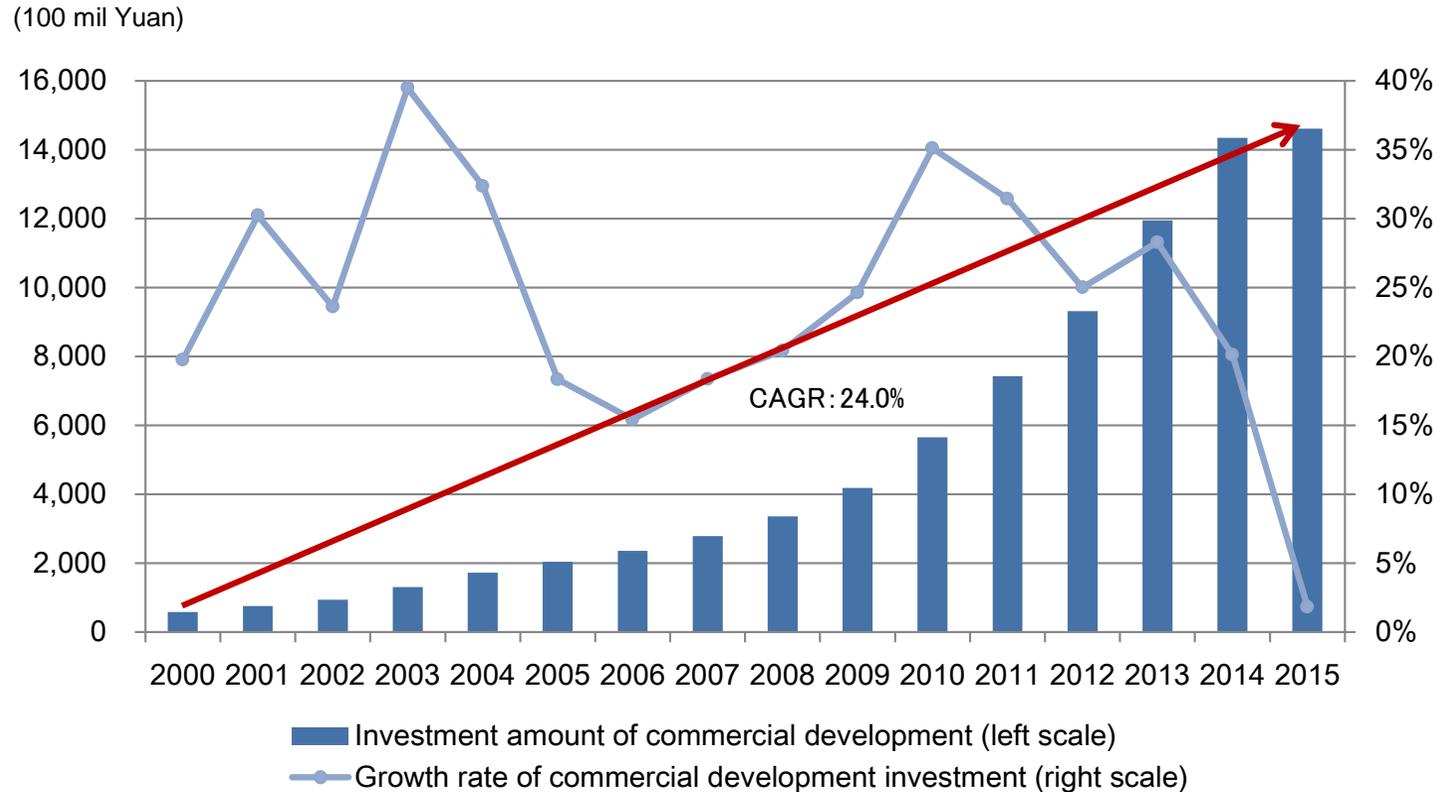


Source) National Bureau of Statistics of China

## China's Commercial Real Estate Market: Commercial Facility

Investment for commercial facility development has been rapidly growing at an annual rate of 24% on average since 2000. The volume of investment in 2015 was 25 times and more as large as that of 2000.

*Change in Investment Amount and Growth Rate of Commercial Facilities*

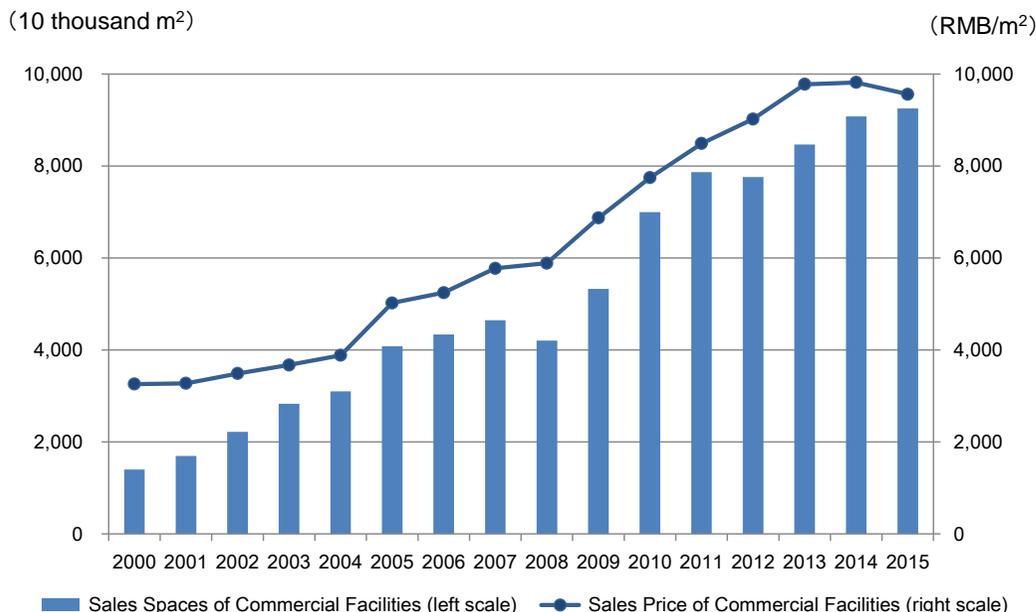


Source) National Bureau of Statistics of China

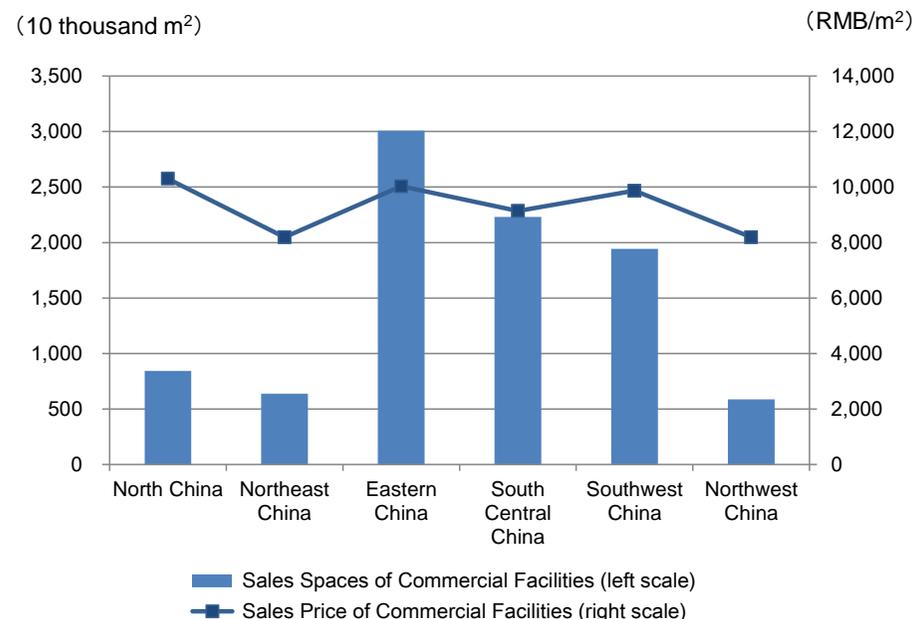
## China's Commercial Real Estate Market: Commercial Facility

Average unit sales price of offices in 2015 has risen by about 3 times of that in 2000, and about 30% of the sales volume is concentrated in Eastern China, which is economically developed.

*Changes in Sales Spaces/Unit Sales Price of Commercial Facilities in China*



*Changes in Sales Spaces/Unit Sales Price of Commercial Facilities by Region (2015)*



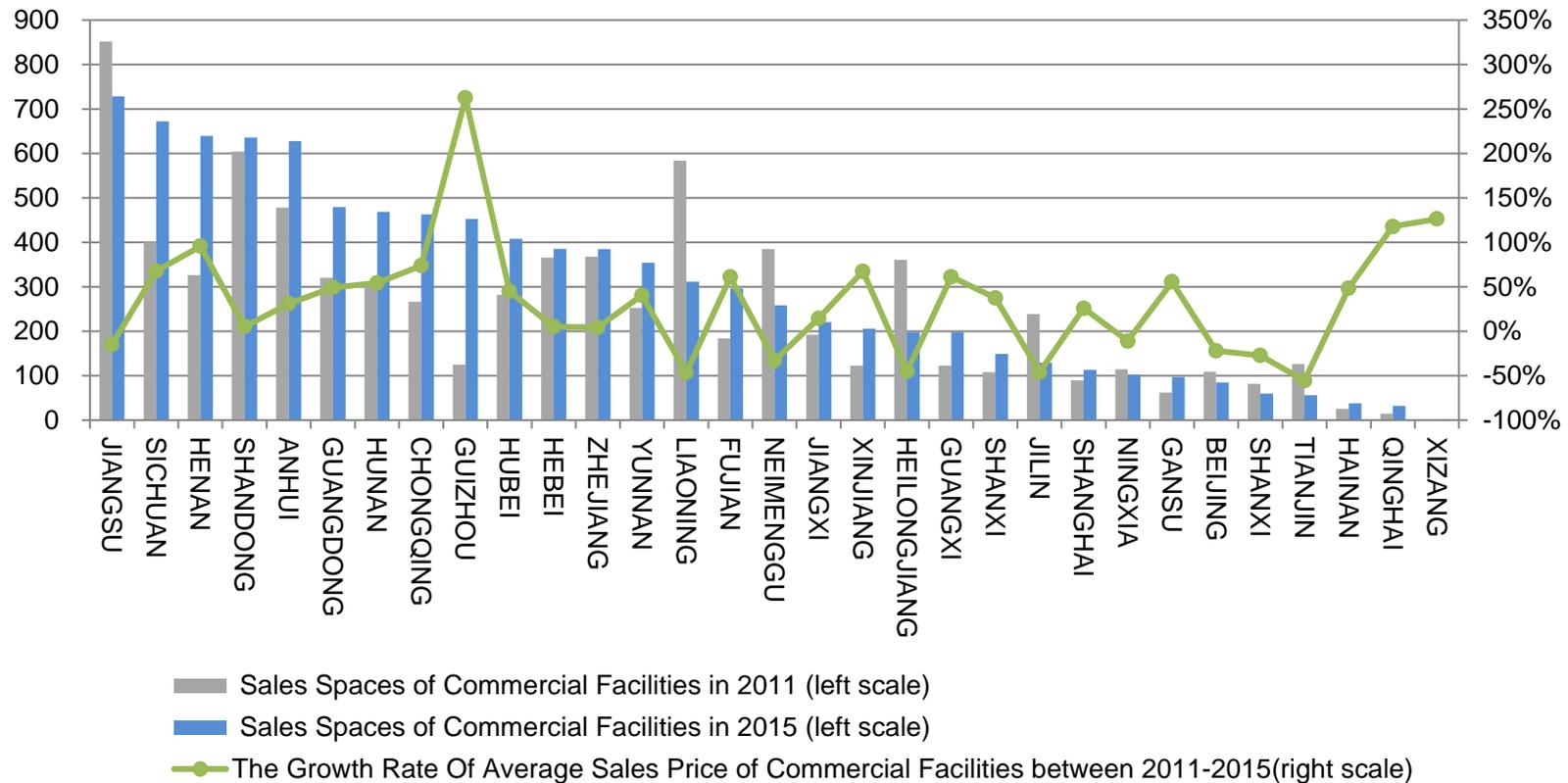
Note: North China: Beijing, Tianjin, Hebei, Shanxi, Neimenggu  
 Northeast China: Heilongjiang, Jilin, Liaoning  
 Eastern China: Shanghai, Jiangsu, Zhejiang, Fujian, Shandong, Anhui, Jiangxi  
 South Central China: Guangdong, Hainan, Henan, Hubei, Hunan, Guangxi  
 Southwest China: Sichuan, Guizhou, Yunnan, Xizang, Chongqing  
 Northwest China: Shanxi, Gansu, Qinghai, Ningxia, Xinjiang

## China's Commercial Real Estate Market: Commercial Facility

Commercial development in developing areas such as Henan, Guizhou, Xizang, Xinjiang, Qinghai, etc. has been especially buoyant in the last 5 years.

Comparison of Sales Spaces of Commercial Facilities by Region

(10 thousand m<sup>2</sup>)

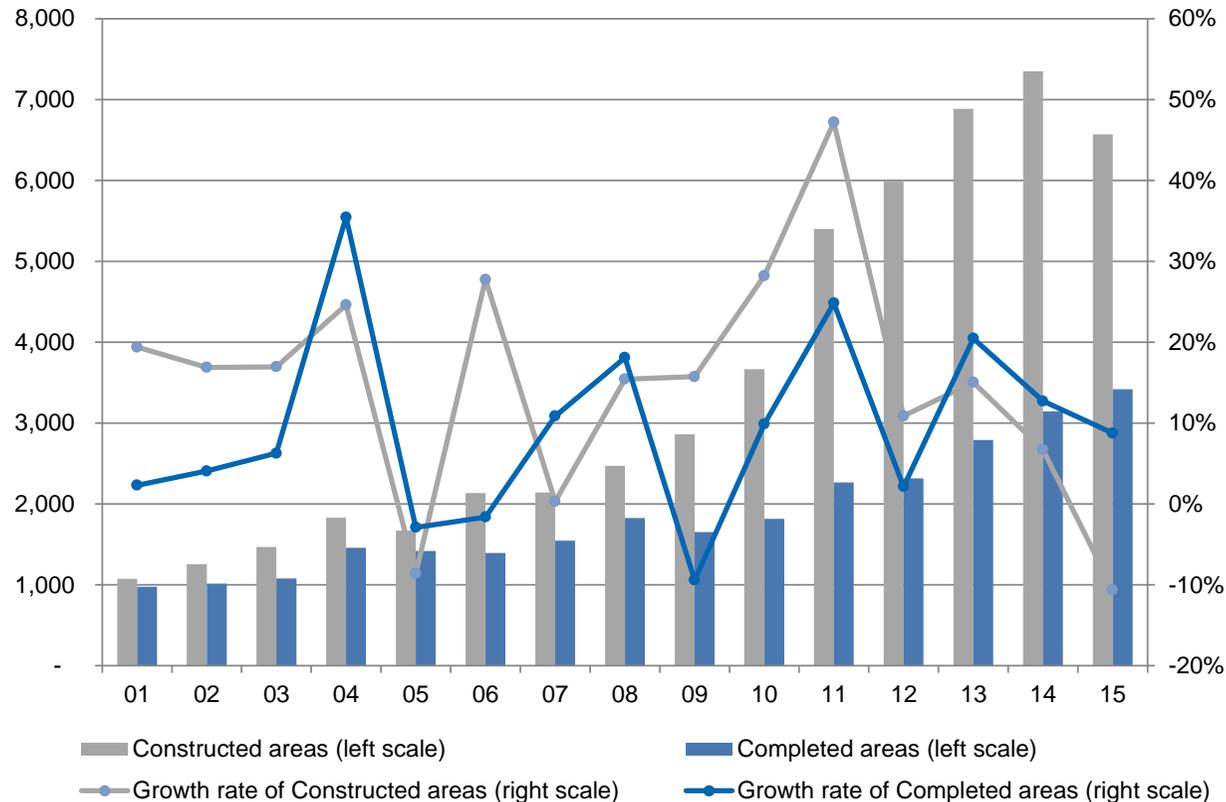


## China's Commercial Real Estate Market: Office

Office supply in urban areas in China has experienced a downturn after the Lehman Brothers' failure in 2008; however, a growing trend with a low completion rate continues as a whole.

*Change in Nationwide Office Supply*

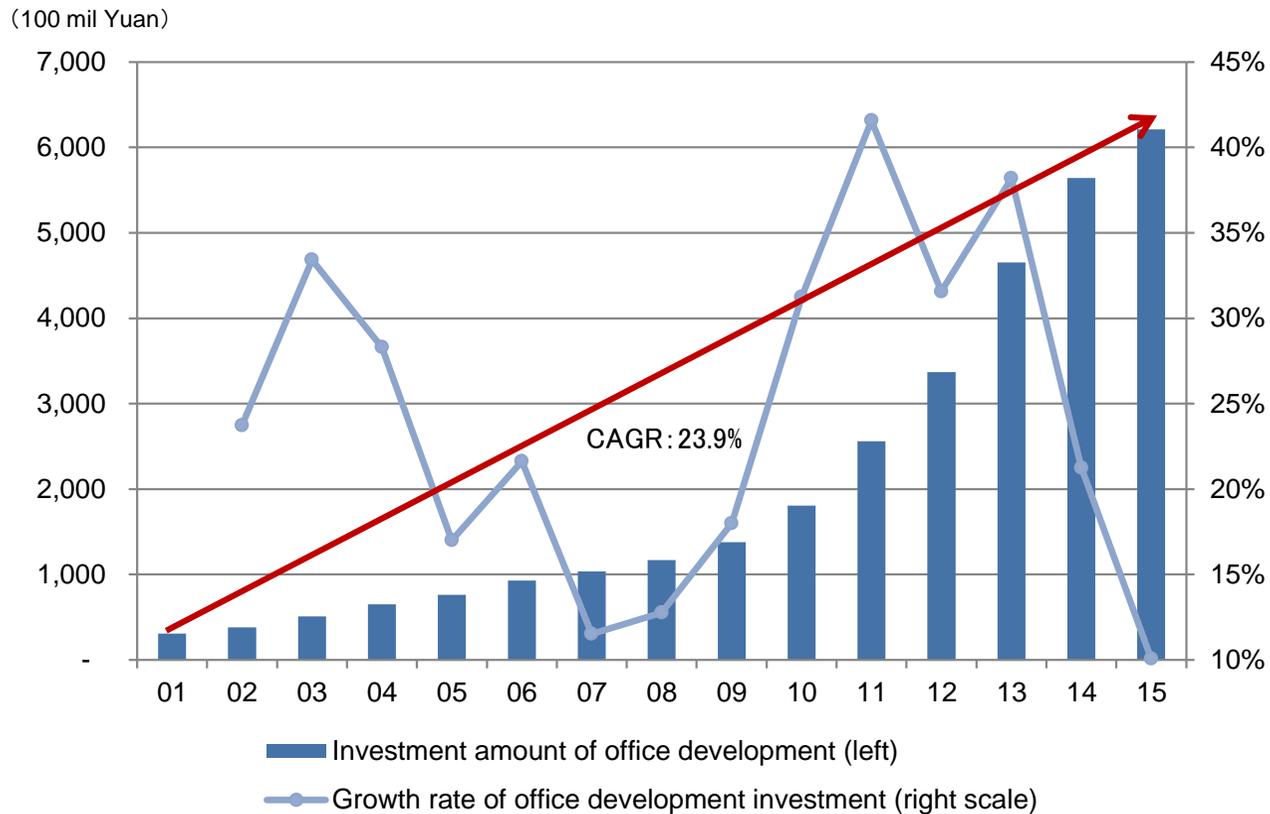
(10 thousand m<sup>2</sup>)



## China's Commercial Real Estate Market: Office

Investment towards office development has been expanding at an annual growth rate of around 24% on average in the last 14 years.

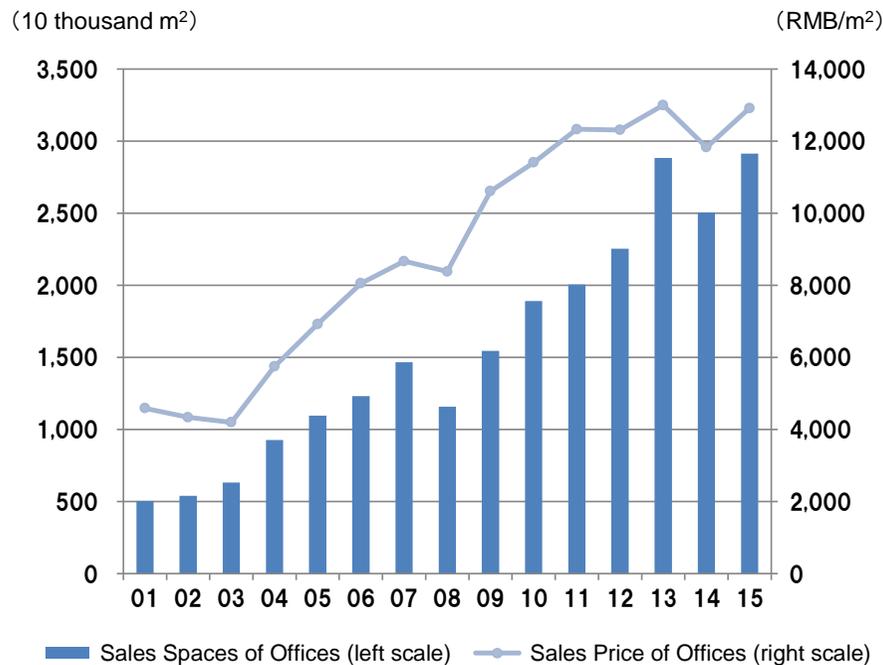
*Changes in Investment Amount/ Growth Rate of Office Development*



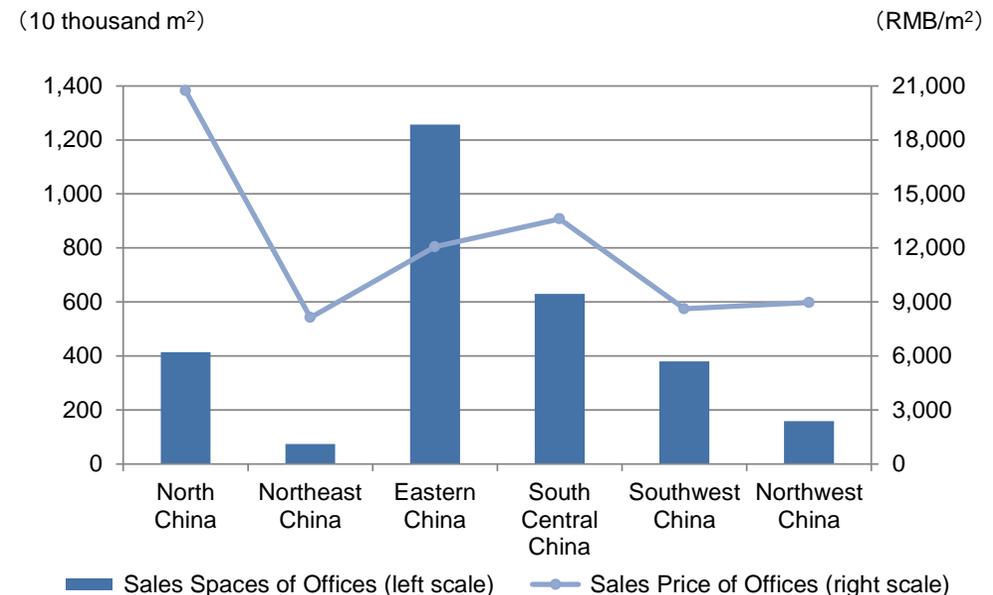
## China's Commercial Real Estate Market: Office

Average unit sales price of offices in 2014 increased 2.8 times as much as that in 2001, with more than 40% of the office sales concentrated in Eastern China, whose economy is rapidly developing.

Changes in Sales Spaces/Unit Sales Price of Offices in China



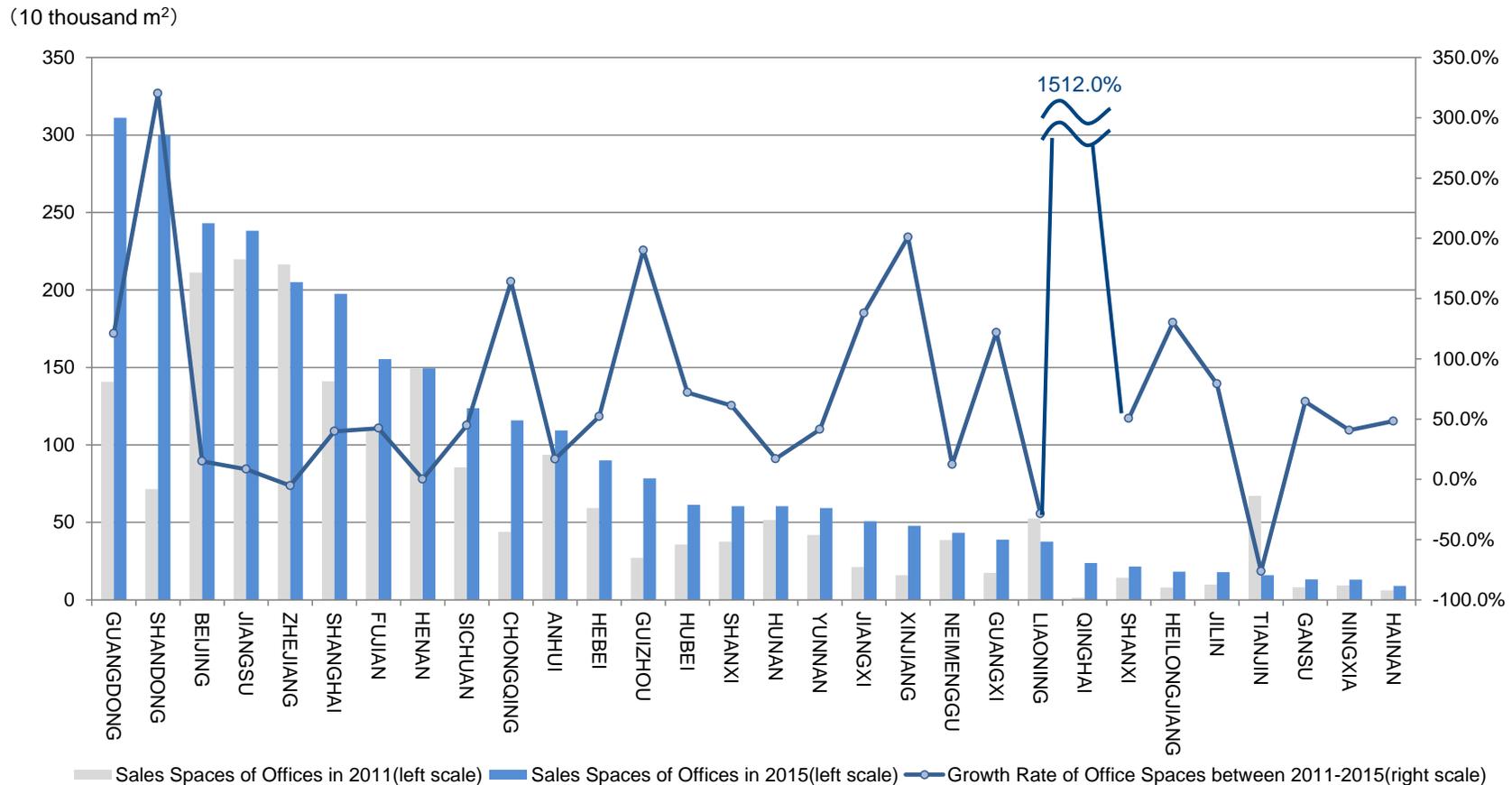
Sales Spaces/Unit Sales Price of Offices by Area (2014)



Note: North China: Beijing, Tianjin, Hebei, Shanxi, Neimenggu  
 Northeast China: Heilongjiang, Jilin, Liaoning  
 Eastern China: Shanghai, Jiangsu, Zhejiang, Fujian, Shandong, Anhui, Jiangxi  
 South Central China: Guangdong, Hainan, Henan, Hubei, Hunan, Guangxi  
 Southwest China: Sichuan, Guizhou, Yunnan, Xizang, Chongqing  
 Northwest China: Shanxi, Gansu, Qinghai, Ningxia, Xinjiang

**China's Commercial Real Estate Market: Office**  
**Approx. 30% of office sales in 2015 was concentrated in the Yangtze River Delta Area (Shanghai, Jiangsu and Zhejiang). Office sales in regions such as Qinghai, Shandong, Xinjiang and Guizhou have dramatically increased.**

*Comparison of Office Sales Spaces by Region*



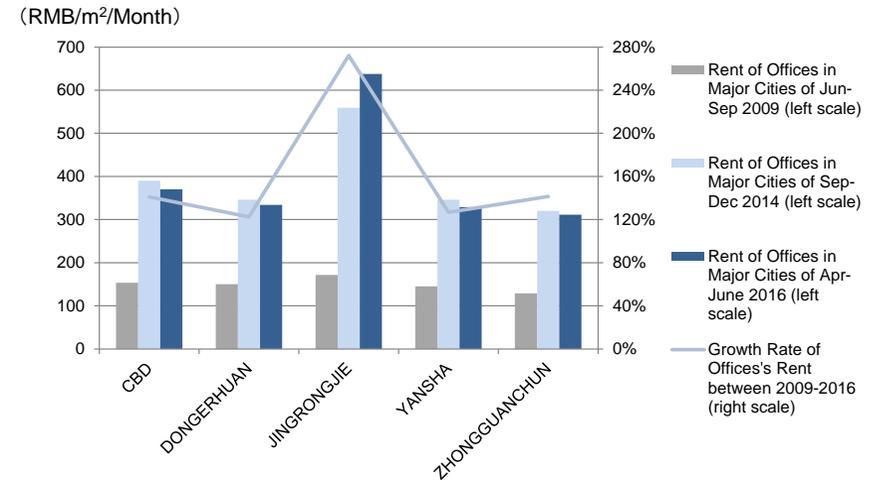
# China's Commercial Real Estate Market: Office

There is an active demand for offices in Central Beijing; vacancy rates other than in Yansha are low, although rents did increase a great deal, and until 2014, there were areas without a rise in rents due to the increase of supplied offices.

Map of Central Beijing

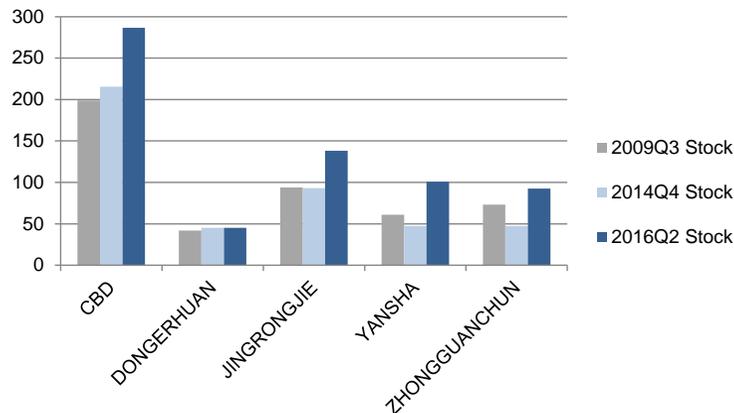


Changes in Office Rent in Each District of Central Beijing



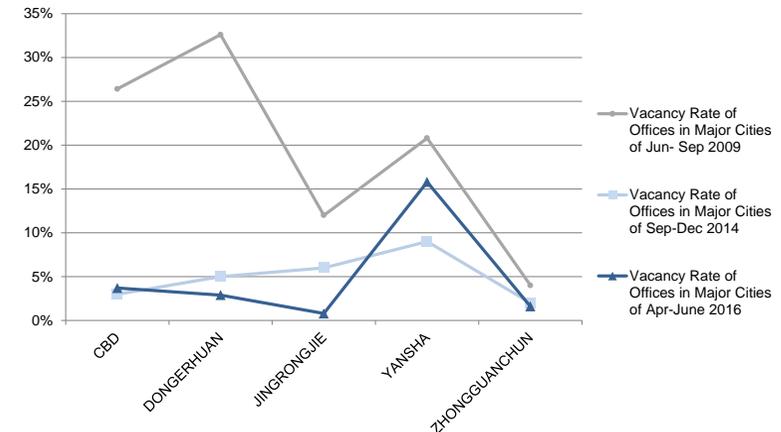
Changes in Office Stock in Central Beijing

(10 thousand m<sup>2</sup>)



Changes in Vacancy Rate of Offices in Central Beijing

(RMB/m²/Month)

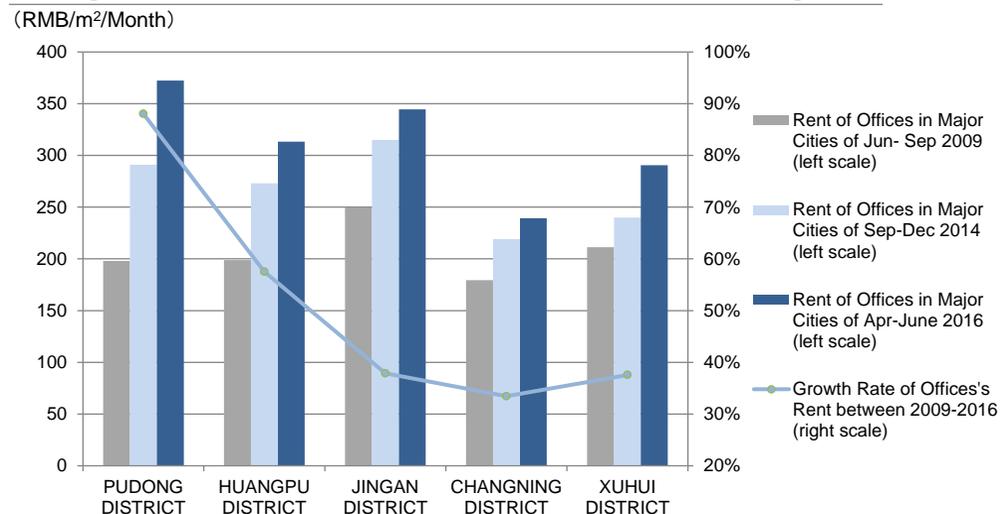


**China's Commercial Real Estate Market: Office**  
**In recent years, there was a lack of supply of new offices in Central Shanghai; the vacancy rate is low, but the rents are high. Among which, the growth of rents in the Pudong New Area are remarkable, topping all calculations.**

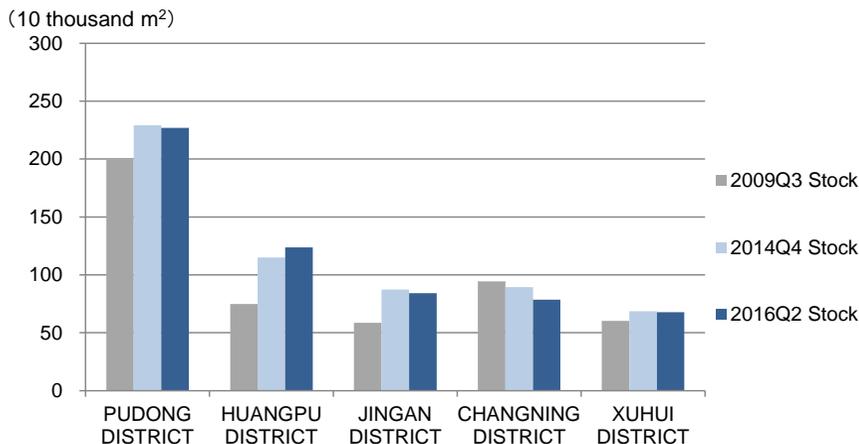
Map of Central Shanghai



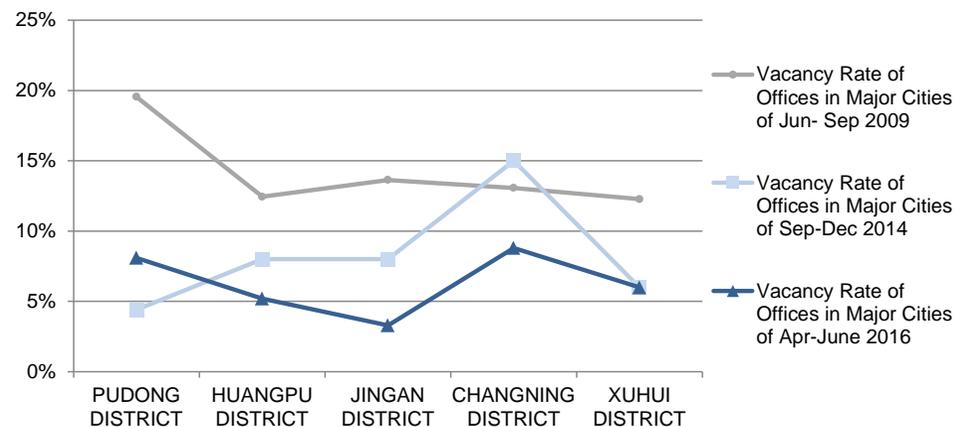
Changes in Office Rent in Each District of Central Shanghai



Changes in Office Stock in Central Shanghai



Changes in Vacancy Rate of Offices in Central Shanghai

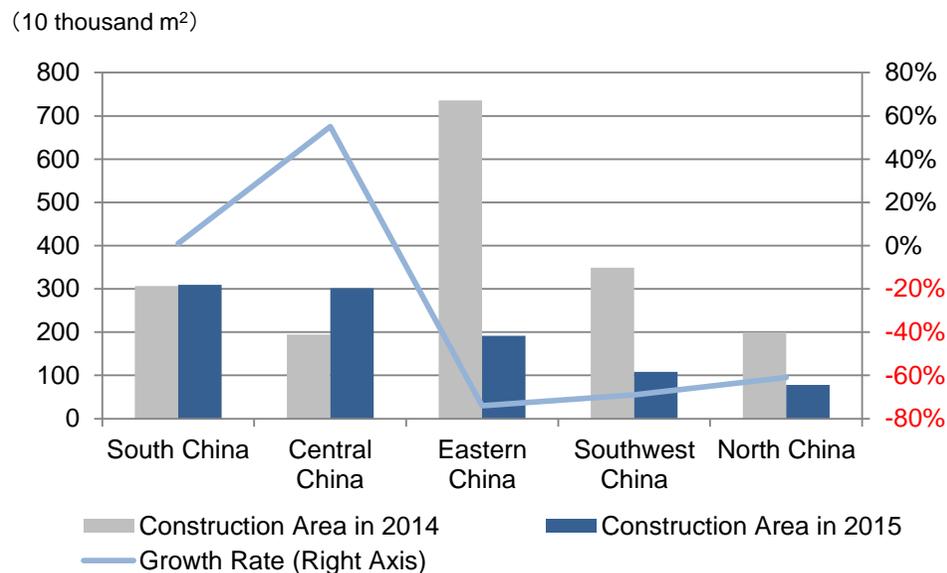


## China's commercial real estate market: tendency of shopping center.

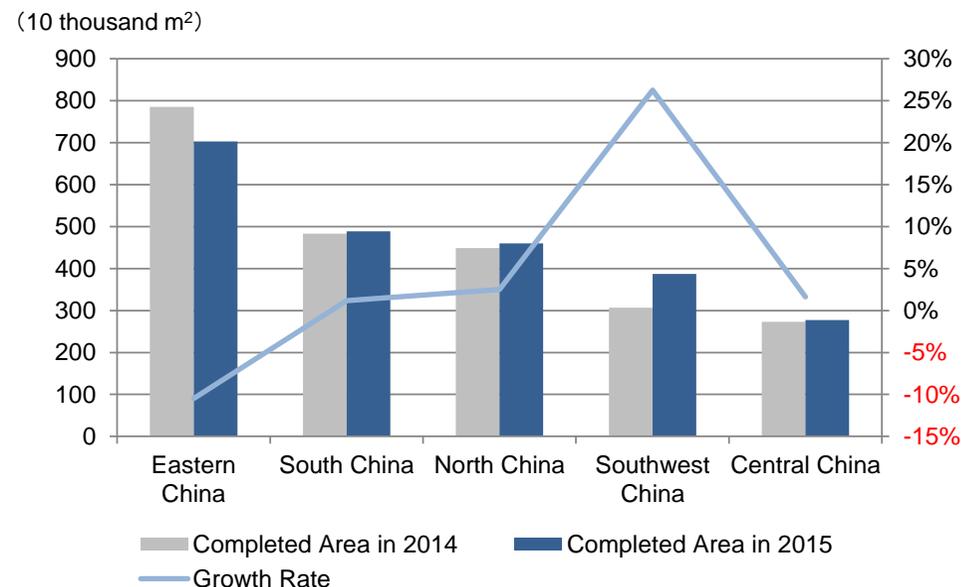
In recent years, although Eastern China maintained the top place in numbers of opening areas, a tendency of decline has been witnessed. Meanwhile, there is active development in central China with many second-class cities and inland cities.

- During 2013-2016, the gross area of developed shopping centers in the whole of China was approx 120.10million m<sup>2</sup>, among which, 5.4 million have started and are scheduled to open within 3 years.
- In 2015, South China ranked at the top of started areas. Central China, with a remarkable growth rate (55%), is garnering people's attention.
- Although in recent years, due to the effects of the development boom, Eastern China has remained the top opening area, a tendency of decline has been seen. The growth rate of Southwest China is 26%, the greatest in the nation.

*Development of urban complexes in major cities in China (as of end of 2013)*



*Development of urban complexes in major cities in China (Estimated development volume from 2014 to 2016)*



Note: Shopping centers here include large-scale commercial properties, outlets, community shopping malls, etc.

**In 2016, due to the diverse needs of consumers, China's new consumption needs to be led by lifestyle consumption behavior, and evoking & developing new consumption needs are becoming important.**

### Directions of China's real estate market in 2016

**1** Decline of traditional modes such as department stores, GMS, mass merchandise outlets, rise of new life systems, sport systems, health and cultural functionality as commercial complex development

**Place value on experience, exchange, sharing and individuality.  
Switch to new commercial modes based on Lifestyle proposals**

**2** Cooperation with Online-Offline enterprises that was caused by the downturn of management of actual stores and the overheating E-business competition

**Review of formation of value brought by commercial facility through formation of Online To Offline business**

**3** Intrusion of new participants around Lifestyle, product development marching over industry, and the progression of service cultivation

**Search for new facility management and consumption modes by fusing diverse business participants together**

## China

Indeterminacy of market is rising cause of facing transition stage.

1

Macro Economy and Real Estate Investment

2

Real Estate Investment

3

Residential Market

4

Commercial Development and Office Market

5

Movements of Chinese Real Estate Developers

## Movements of Chinese Real Estate Developers

In 2015, instead of Shimao Property Holdings Ltd. which ranked in the top 10 for 3 consecutive years, China Fortune, a big-scale private enterprise, is developing new characteristics as the main business groups ranked in the top 10.

### Comparison of Developers Top 10 (2010~2015)

Unit: 100 mil RMB

Rank	2010		2011		2012		2013		2014		2015	
	Company Name	Total Sales	Company Name	Total Sales								
1	Vanke Group	1,026	Vanke Group	1,215	Vanke Group	1,452	Vanke Group	1,776	Vanke Group	2,120	Vanke Group	2,627
2	Poly Group	660	Dalian Wanda Group	953	Poly Group	1020	Shanghai Greenland Group	1,625	Shanghai Greenland Group	2,080	Evergrande Group	2,050
3	Shanghai Greenland Group	650	Evergrande Group	804	Shanghai Greenland Group	1013	Poly Group	1,251	Dalian Wanda Group	1,501	Shanghai Greenland Group	2,015
4	China Overseas Land	578	Shanghai Greenland Group	770	China Overseas Land	945	China Overseas Land	1,103	Evergrande Group	1,376	Dalian Wanda Group	1,513
5	Evergrande Group	527	Poly Group	732	Dalian Wanda Group	938	Evergrande Group	1,073	Poly Group	1,362	China Overseas Land	1,492
6	China Greentown	522	China Overseas Land	708	Evergrande Group	925	Country Garden	1,068	Country Garden	1,250	Poly Group	1,471
7	Dalian Wanda Group	369	Country Garden	432	China Greentown	547	Dalian Wanda Group	844	China Overseas Land	1,152	Country Garden	1,402
8	Longfor Group	336	Longfor Group	383	China Resources Land	505	China Resources Land	688	Shimao Property Holdings	708	China Resources Land	851
9	Country Garden	330	China Greentown	353	Country Garden	491	Shimao Property Holdings	683	China Resources Land	700	Sunac China	731
10	R&F Properties	321	China Resources Land	330	Shimao Property Holdings	461	China Greentown	660	Sunac China	658	China Fortune Land Development	725
<b>Total Sales</b>	5,319		6,680		8,297		10,771		12,907		14,877	
<b>Total Share within National Sales</b>	10.1%		11.3%		12.9%		13.3%		16.9%		17.0%	
<b>Average Coverage</b>	30.6 Cities		40.5 Cities		53.1 Cities		67.2 Cities		73.7 Cities		75.1 Cities	

## Movements of Chinese Real Estate Developers

China's large-scale real estate enterprises all make a strong effort to invest in new business other than real estate, targeting diversified development by "light asset" strategies.

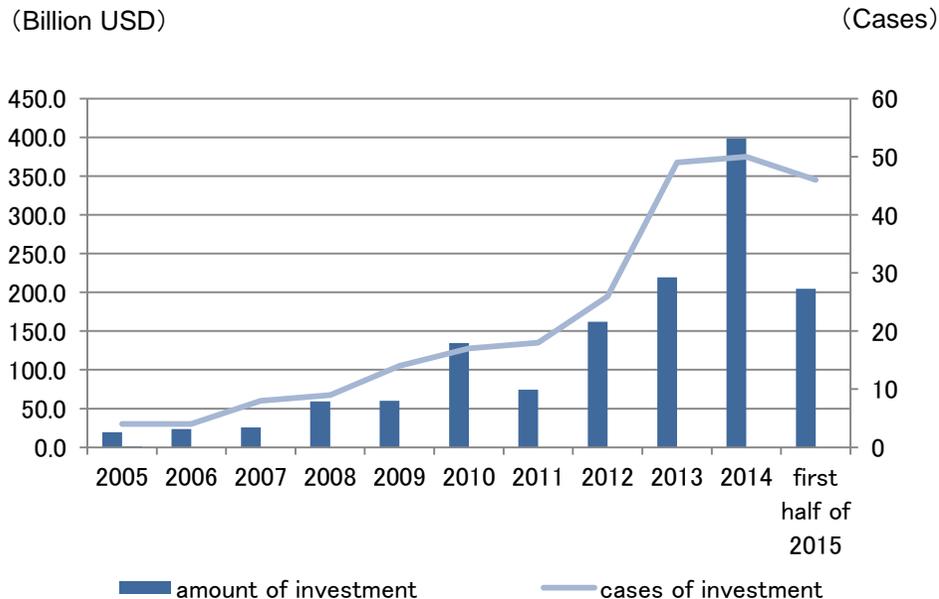
Tendency of the business strategy of China's Top 4 real estate enterprises	Sales target in 2016
<p><b>Vanke</b> (No.1)</p> <ul style="list-style-type: none"> <li>• 2011: Commercial development and house development for the senior population.</li> <li>• 2013: The "80% residential + 20% commercial" strategy. Entry in overseas real estate markets in the US, Hong Kong, Singapore, etc.</li> <li>• 2014: Started "real estate + network" business through cooperation with information service providers. Real estate developers aimed to become urban service providers and implemented "asset-light" strategy. Entry to education business</li> <li>• 2015: Marketing of real estate management business, entry to logistics and real estate, start of housing rental business, expansion of overseas investments. 10 years later, targeting at a sale of 1 trillion yuan, and new business other than real estate takes up 50%.</li> </ul>	300 billion Yuan
<p><b>Evergrande</b> (No.2)</p> <ul style="list-style-type: none"> <li>• 2010: Started commercial property business.</li> <li>• 2013: Started consumer goods businesses such as mineral water, cooking oil, and dairy products.</li> <li>• 2014: Started retail business such as department stores and supermarkets.</li> <li>• 2015: Started financing business.</li> <li>• 2016: Besides real estate, there is a strengthening of policy for "finance, tourism, internet business, net service, health, agriculture, sports, and culture."</li> </ul>	300 billion Yuan
<p><b>Green Land</b> (No.3)</p> <ul style="list-style-type: none"> <li>• 2012: Started business in overseas real estate market.</li> <li>• 2013: Expanded commercial property business. The target was "more than 50% of total business is commercial property by 2015."</li> <li>• 2014: Started subway business.</li> <li>• 2015: Accelerated business activities in overseas markets (including Japan).</li> <li>• In 2016, shift of business to "Emphasize revenue instead of scale, emphasize not only development but also operation, emphasize the global market instead of the national market." The diversified development policy of "finance, infrastructure, consumption goods" as 3 pillars other than real estate</li> </ul>	320 billion Yuan
<p><b>Wanda</b> (No.4)</p> <ul style="list-style-type: none"> <li>• 2007: Targeted "growth of the biggest chain department store in China by the opening of 110 stores in 2015"</li> <li>• 2009: Culture and tourism industry was positioned as the next major business area.</li> <li>• 2011: Established a filmmaking company.</li> <li>• 2014: Introduced E-business in operation of commercial facilities.</li> <li>• 2015: New policy: "35% or less real estate business and 65% or more service business by 2020." Also, the company aimed to make the proportion of overseas business to be higher than 20% by 2020.</li> <li>• In 2016, turns to complex enterprises from real estate enterprises at the end of 2016, and promotion of a "Light asset" strategy</li> </ul>	254.3 billion Yuan

## Tendencies of Chinese enterprises' overseas real estate

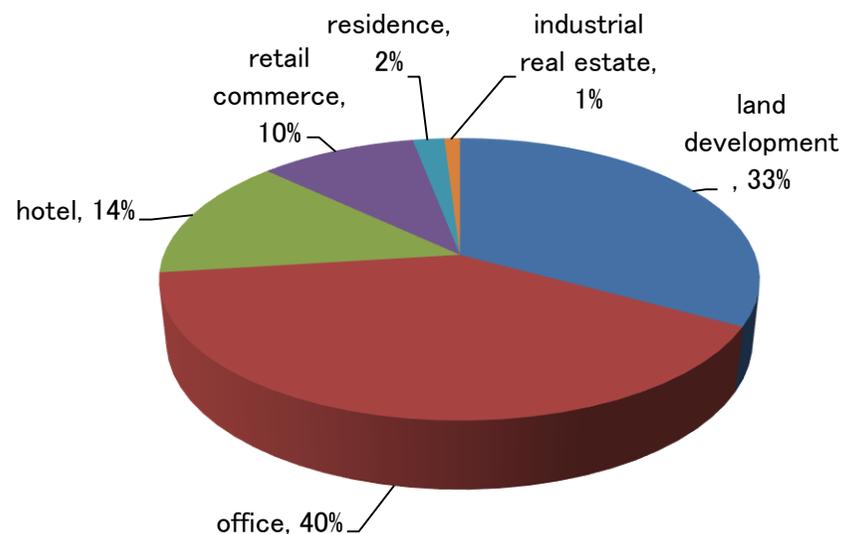
**In the past 10 years, overseas real estate investments by Chinese enterprises increased greatly; diversification of risk and improvement of ROI are prospected.**

- The Chinese government continued policies to constrain transactions of soaring real estate; the growth of the market slowed down. In order to diversify risk and improve ROI in the area of real estate in recent years, large-scale buying of real estate in Europe, America and Asia by China's enterprises continues.
- As for the status of investment in overseas real estate in 2014, the amount of investment is more than 20 times that of 2005; the number of invested cases reached its highest, 50 cases.
- Meanwhile, by reviewing distribution of investment by each category, we can find that investment in offices was 40%, the highest, followed by development of land, 33%.
- Concerning enterprises implementing overseas real estate investment, there were many insurance enterprises, commercial banks, investment funds, and the main force is still large-scale real estate enterprises.

Status of overseas investment by Chinese enterprises during 2005 ~2015



Distribution of overseas investment by Chinese enterprises by category in 2015



Source: Compiled by NRI based on "2015 Chinese Enterprise Global Report"

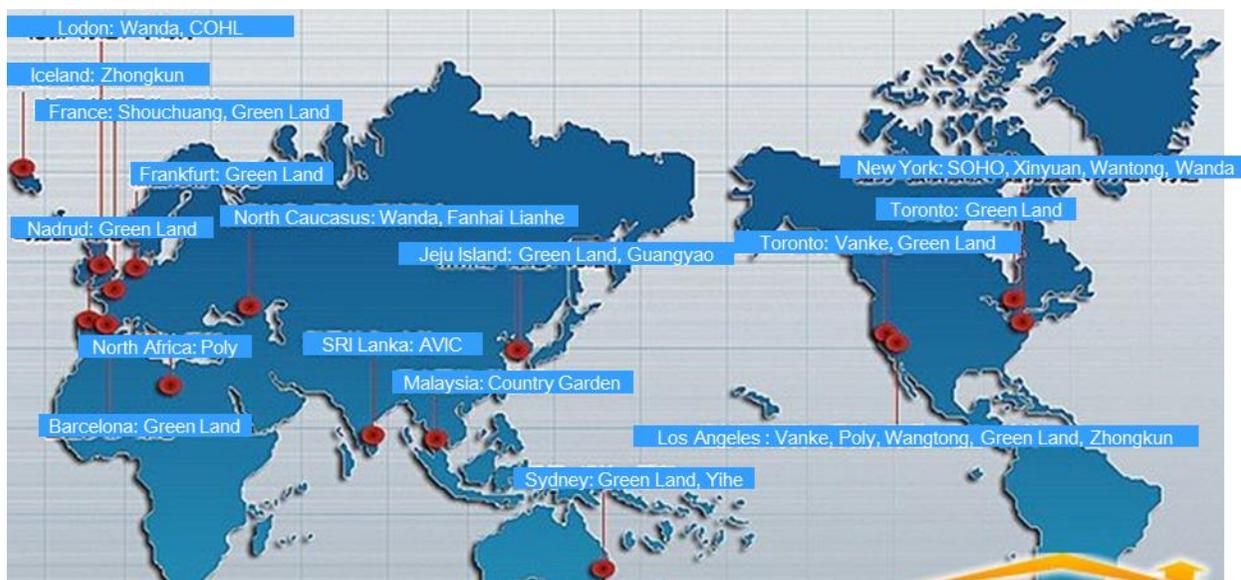
Source: Compiled by NRI based on "2015 Report on Overseas Investment Market for Chinese Enterprises" by DTZ

## Movements of Chinese Real Estate Developers: Overseas investment

Major Chinese Real Estate Developers started overseas investment in 2012. Popular destinations are North America, Australia and Europe where markets are mature and the legal environment is well established.

- In 2012, major Chinese Real Estate Developers such as Vanke, Green Land, Wand, and Poly, started investment in overseas real estate markets.
- Popular destinations for overseas investment are North America, Australia and Europe where markets are mature and the legal environment is well established. In Asia, popular destinations for investment are Malaysia, Taiwan, Singapore, Korea, and Japan recently.

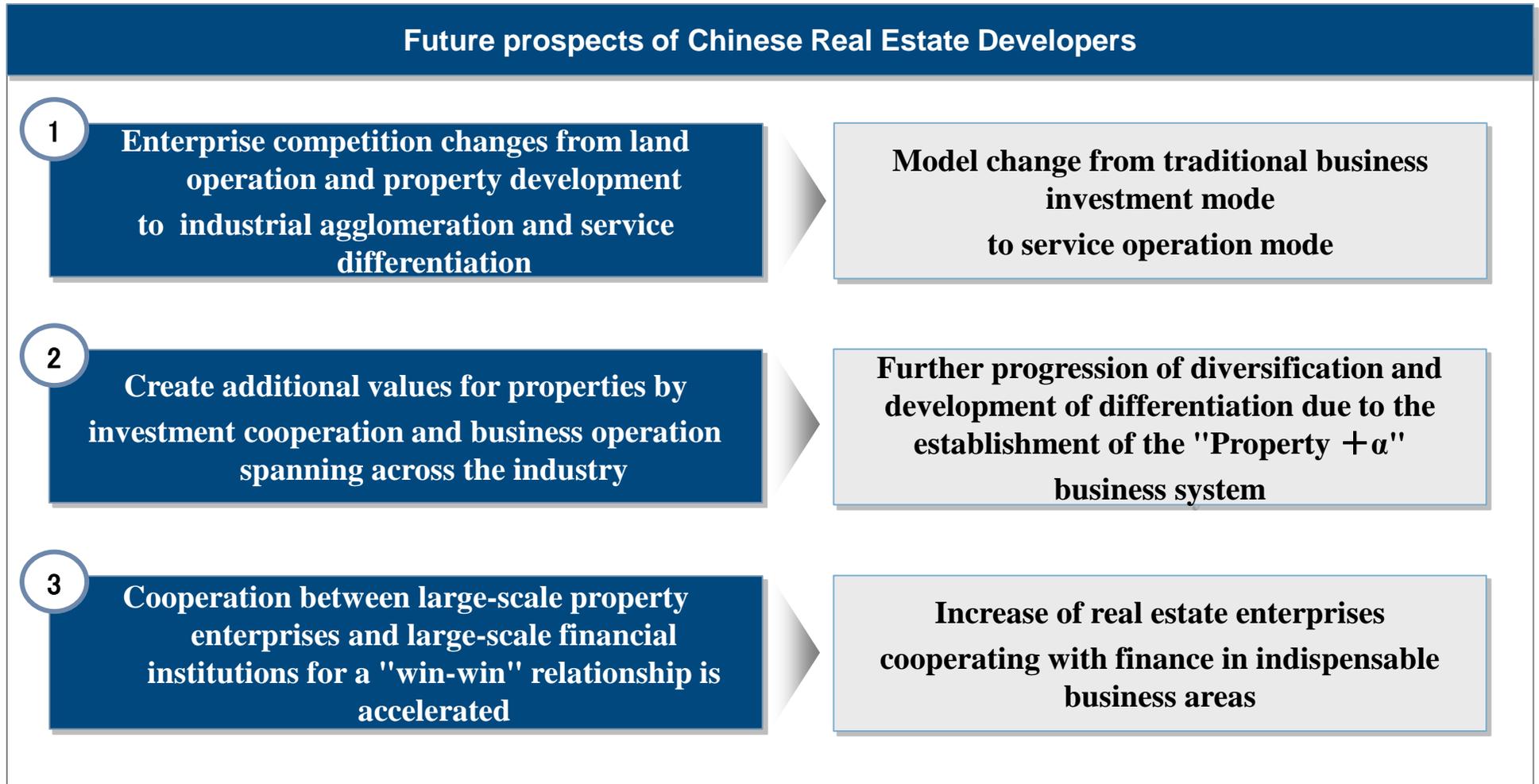
*Overseas businesses of major Chinese real estate companies as of 2016 (partial data)*



Overseas investment area		Chinese real estate developers
North America	New York (US)	SOHO, Xinyuan, Wantong, Wanda, Green Land, Vanke, Shoukai, Fosun
	San Francisco (US)	Vanke, Green Land
	Chicago (US)	Zhongxinda
	Los Angeles (US)	Vanke, Poly, Wangtong, Green Land, Zhongkun
	Hawaii (US)	zhongfan
Europe	Toronto (Canada)	Green Land, Wanda, Fanhailianhe
	France	Shouchuang, Green Land
	Frankfurt (Germany)	Green Land
	Russia	Green Land, Wanda, Fanhailianhe, Shangshi
	Spain	Wanda, Green land
Asia	London (UK)	Wanda, COHL, Vanke, Green Land Guorui, Shangzhi, Zongbujidi
	Taiwan	Vanke, Wantong
	Singapore	Vanke, Huashan
	Malaysia	Country Garden, Xinhualian, Yajule, Green Land, Fulli, Guangyao
	Thai	Green Land
	Jeju Island (Korea)	Green Land, Guangyao, Xinhualian
Others	Tokyo (Japan)	Fosun, Green Land
	North Africa	Poly
	Sydney (Australia)	Green Land, Yihe, Wanda, Poly, Country Garden, Shouchuang,

Source: NRI analysis of open information.

## Future prospects of Chinese Real Estate Developers



<b>China</b>	Indeterminacy of market is rising cause of facing transition stage.
<b>Korea</b>	Residential and Real Estate Investment are stable although economic stagnation.
<b>Taiwan</b>	Integration within Greater China brings satisfactory in Hotel domain.
<b>Singapore</b>	Wider domains keep favorable, but residential and commerce show signs to weaken.
<b>India</b>	Economic growth improves broad domains in real estate.
<b>Russia</b>	Residential remains stable in spite of largely affected by devalued currency.

## **Korea**

Residential and Real Estate Investment are stable although economic stagnation.

1

Population and Macroeconomic

2

Office Market

3

House Market

4

Hotel Market

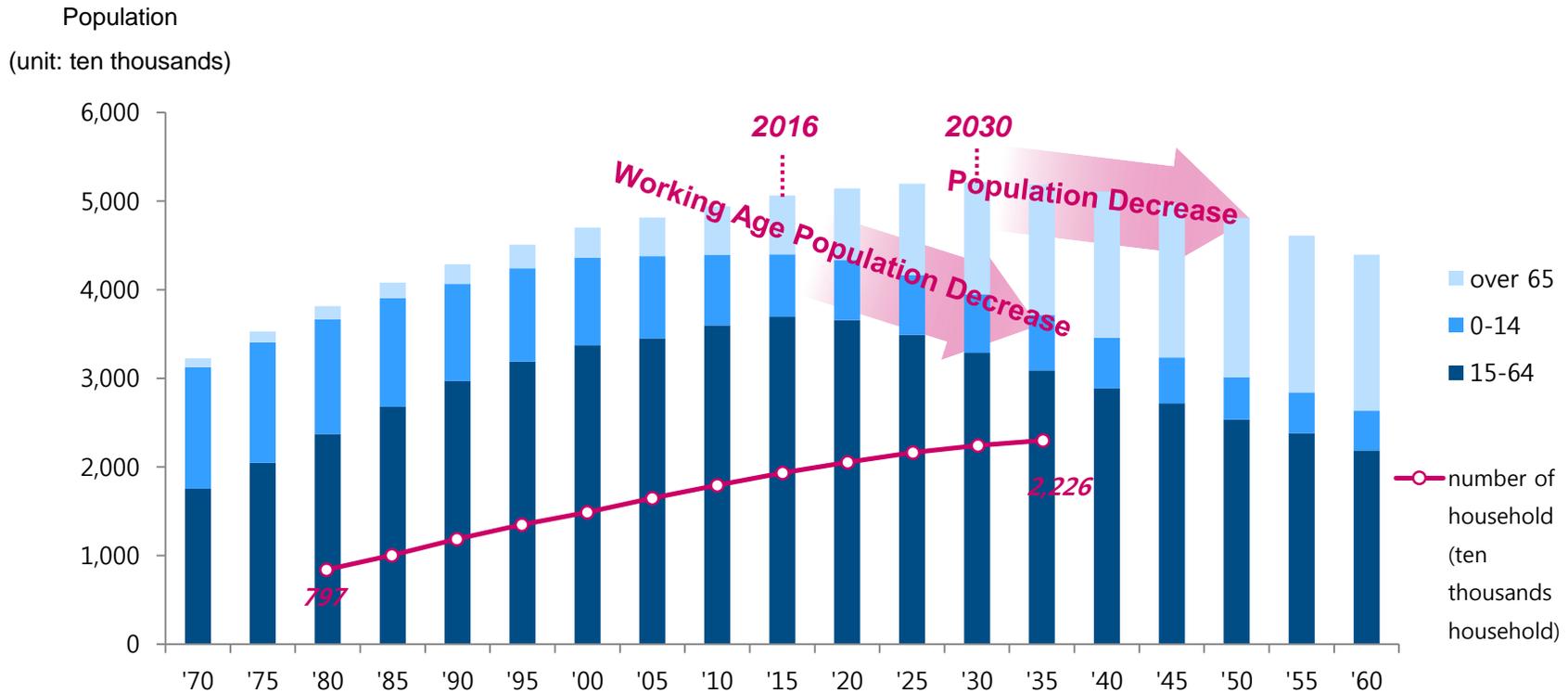
5

Investment Market

## Population Trends

**Working age population in Korea is expected to decline from 2016 and population in Korea is expected to increase to 52 million people by 2030.**

Population and household trends (2010 Standard)



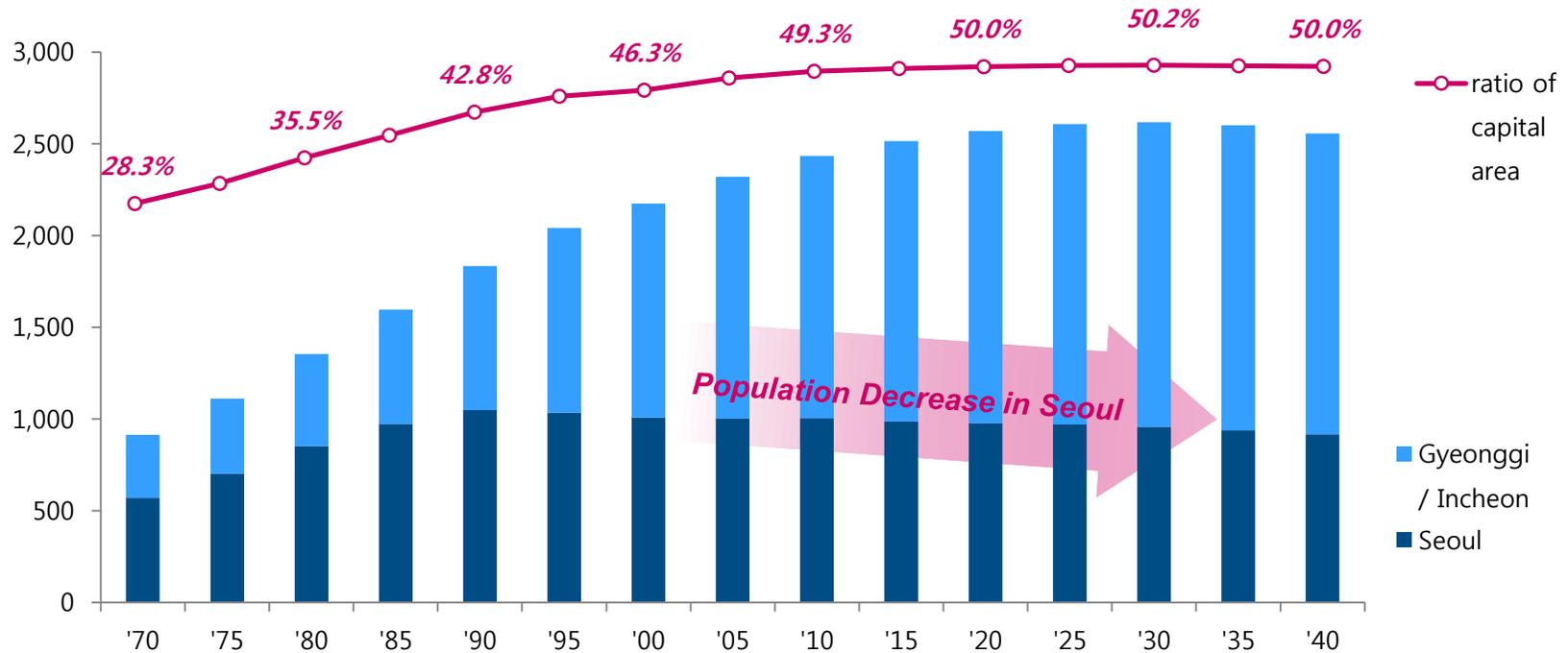
Source: NRI based on National Statistical Office(KOSTAT)

Note: Medium-fertility (medium-mortality) projection

## Population Trends

**Population in metropolitan areas is expected to increase until 2033, accounting for 50% of the Korean population. Population in Seoul has decreased continuously since 2000.**

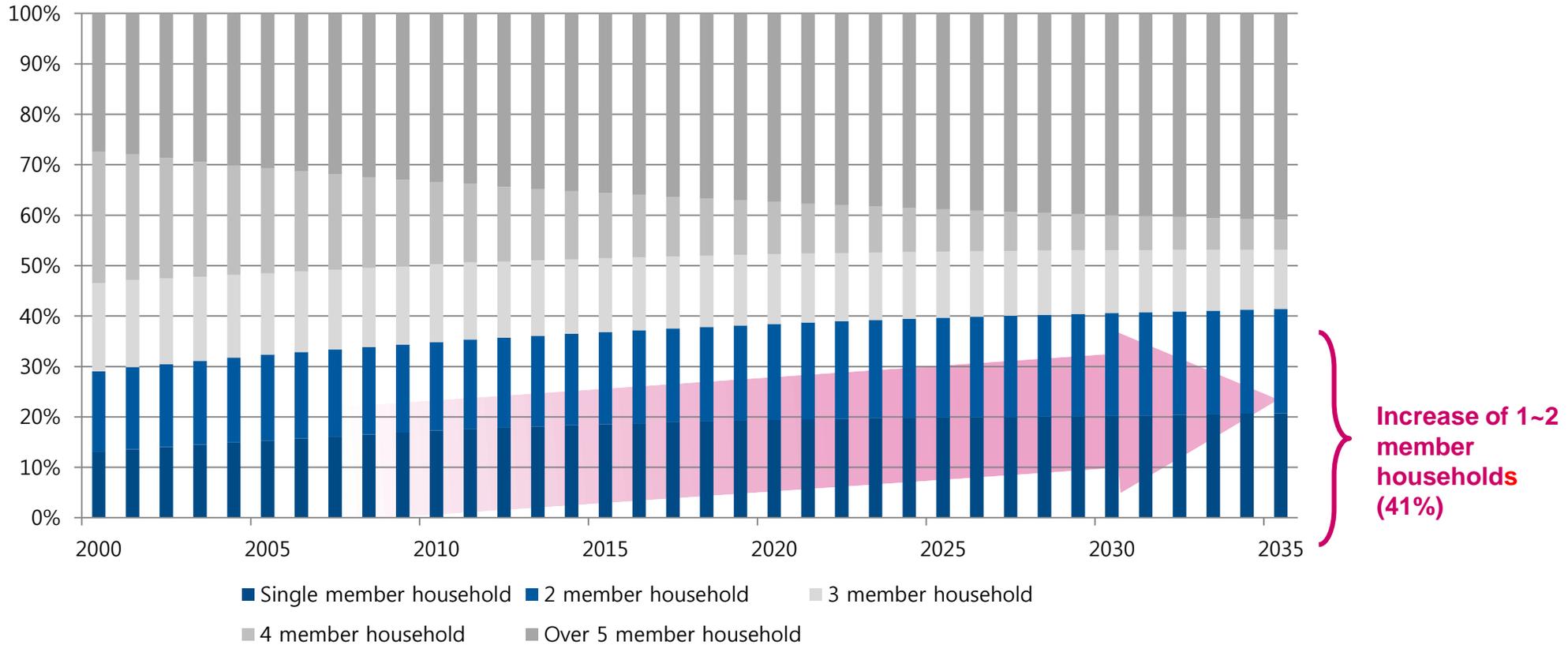
### Population in Metropolitan Area



Source: NRI based on Basic Resident Register Population Migration Report

# 1-2 member households in Korea are expected to increase until 2035.

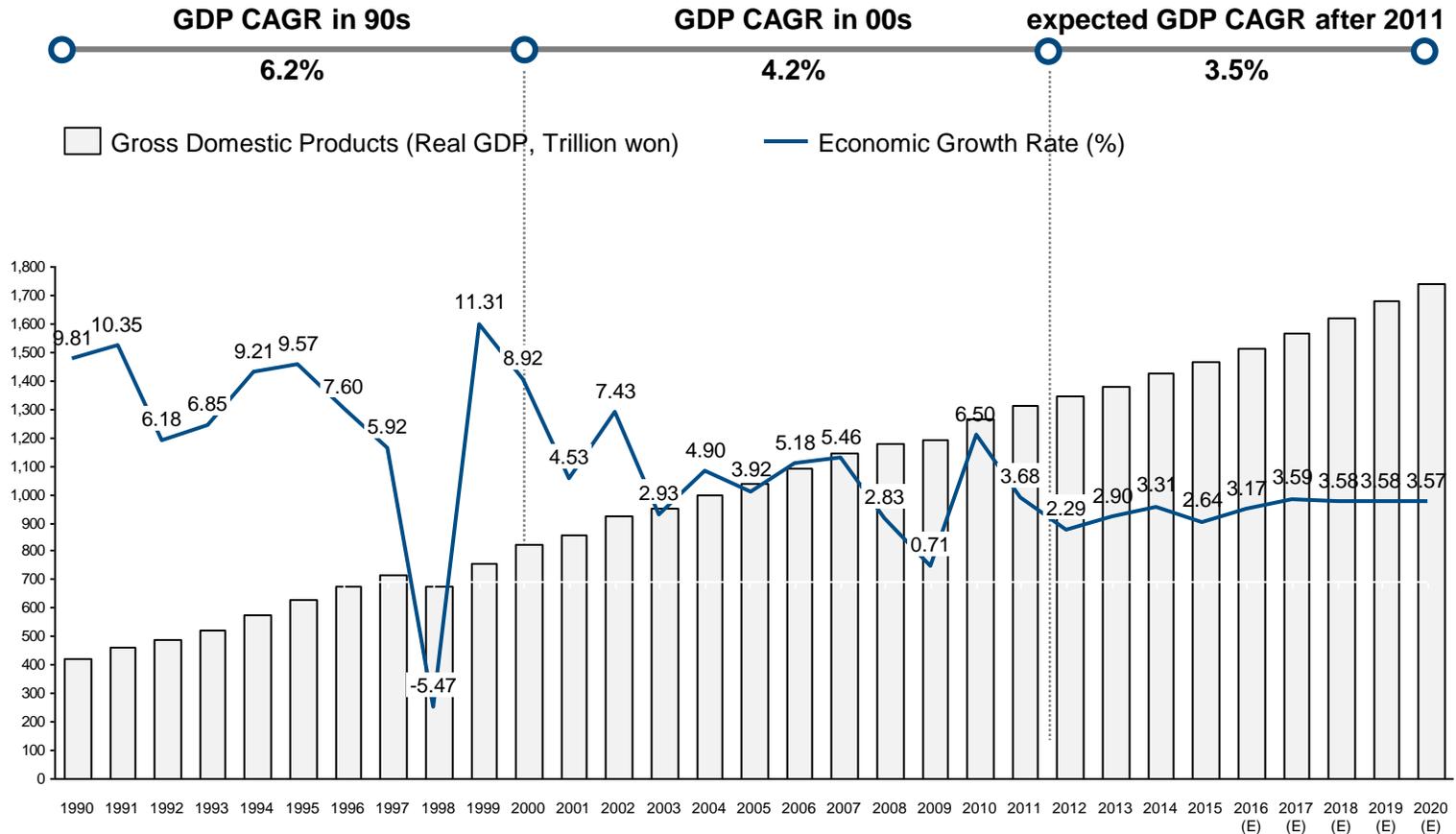
Ratio of Household per number of members



Note: Predicted Data is estimated on the basis of Census in 2005  
Source: NRI based on National Statistical Office(KOSTAT)

# Slow economic growth is expected to last in Korea. Economic growth rate of Korea is forecast to be 3%.

The trend and forecast of GDP and economic growth rate in Korea

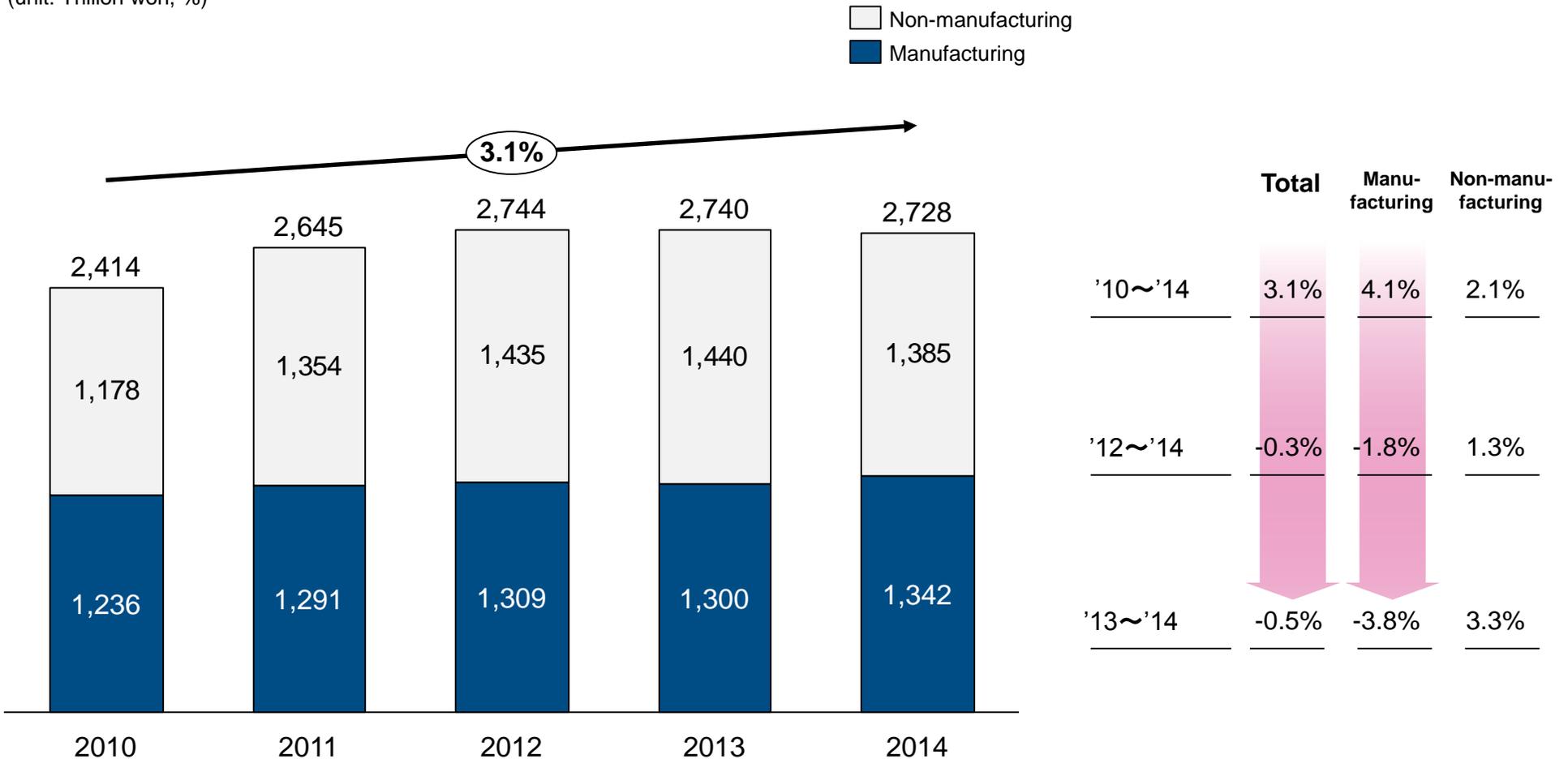


Source: NRI based on IMF(2015.09)

# Total industry sales (manufacturing/non-manufacturing) in Korea is 2,728 trillion KRW and the growth rate in the overall industry has slowed down.

Total domestic industry sales('10-'14)(except Finance and Insurance)

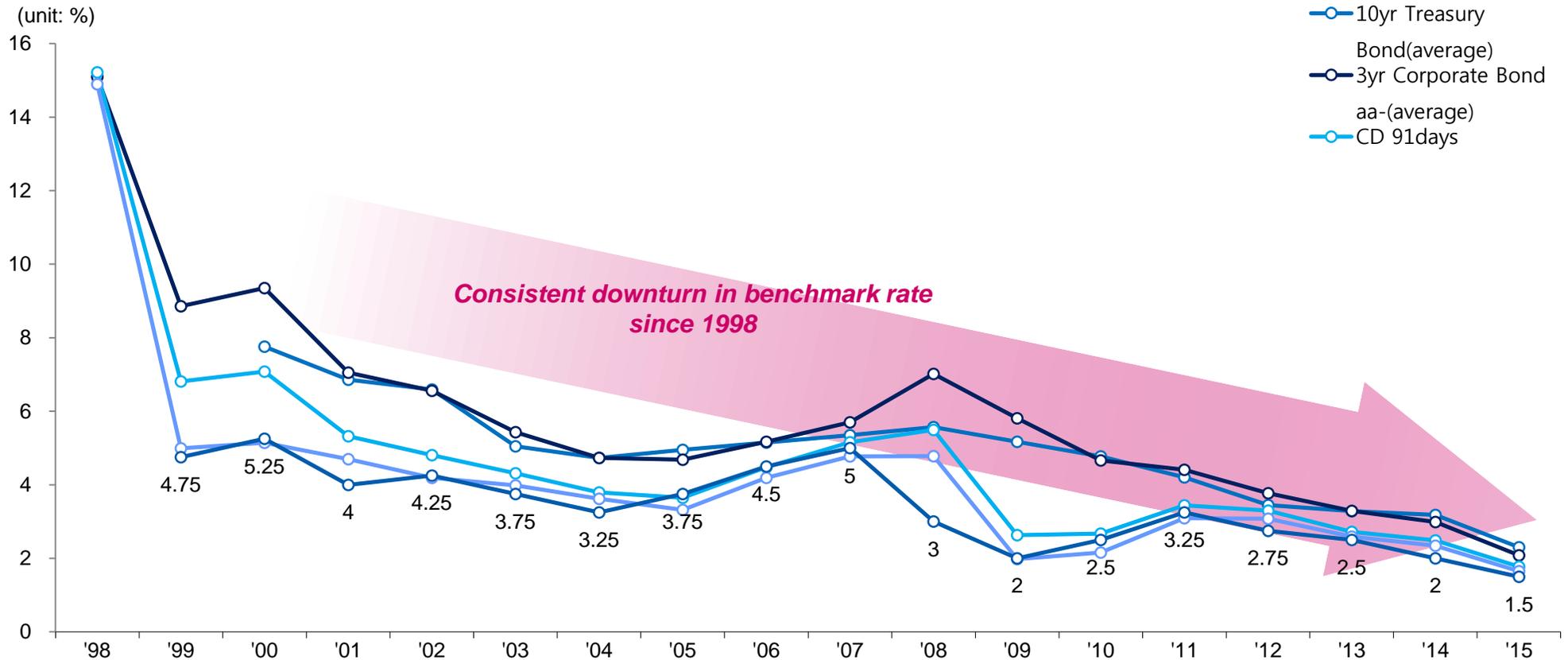
(unit: Trillion won, %)



Source: NRI based on National Statistical Office(KOSTAT)

# Interest rate has declined to 1% since the bankruptcy of Lehman Brothers in 2008. Low interest rate is expected to lead incrementally on liquidity.

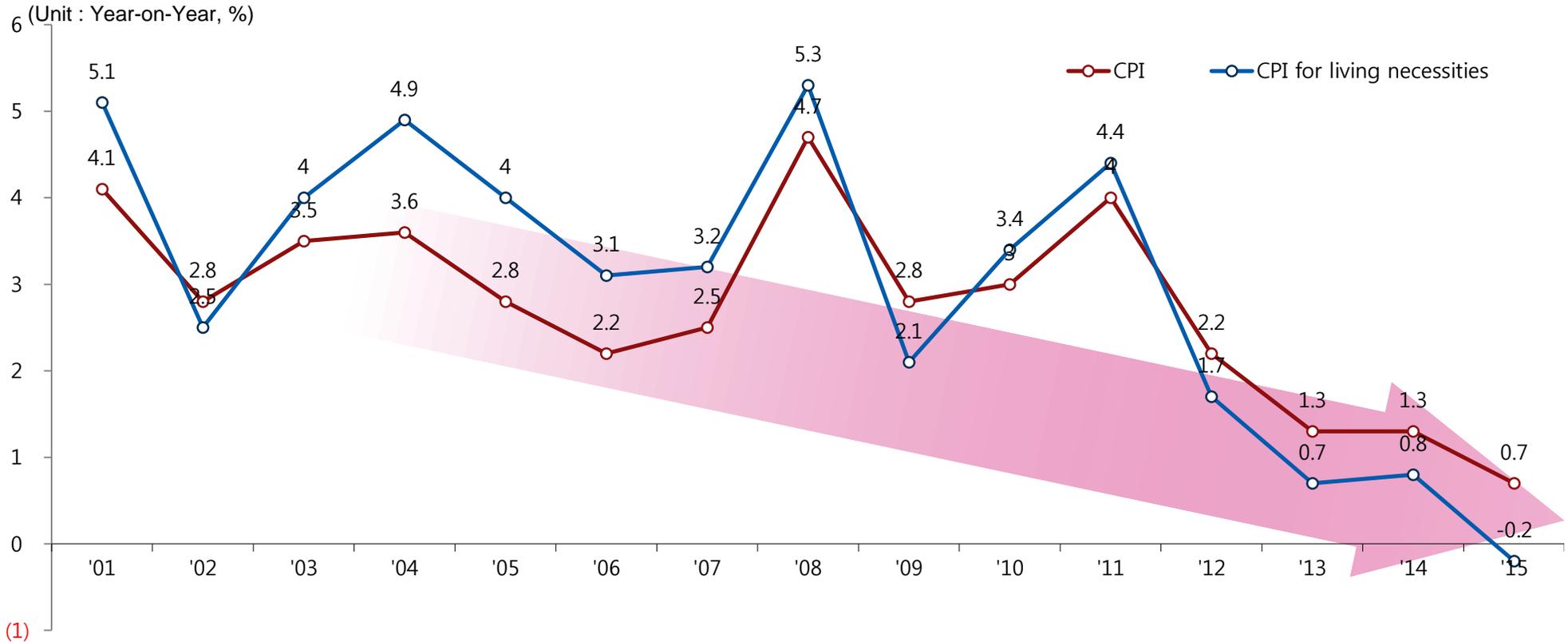
Korea Interest Rate ('97-'14)



Source: NRI based on data from The Bank of Korea

# Valorization Policy maintains Consumer Price Index at approximately 1%.

Changes in Consumer Price Index(CPI) Year-on-year Ratio



Note: CPI indicates monthly weighted average of 481 product categories which standardizes year 2010 as 100

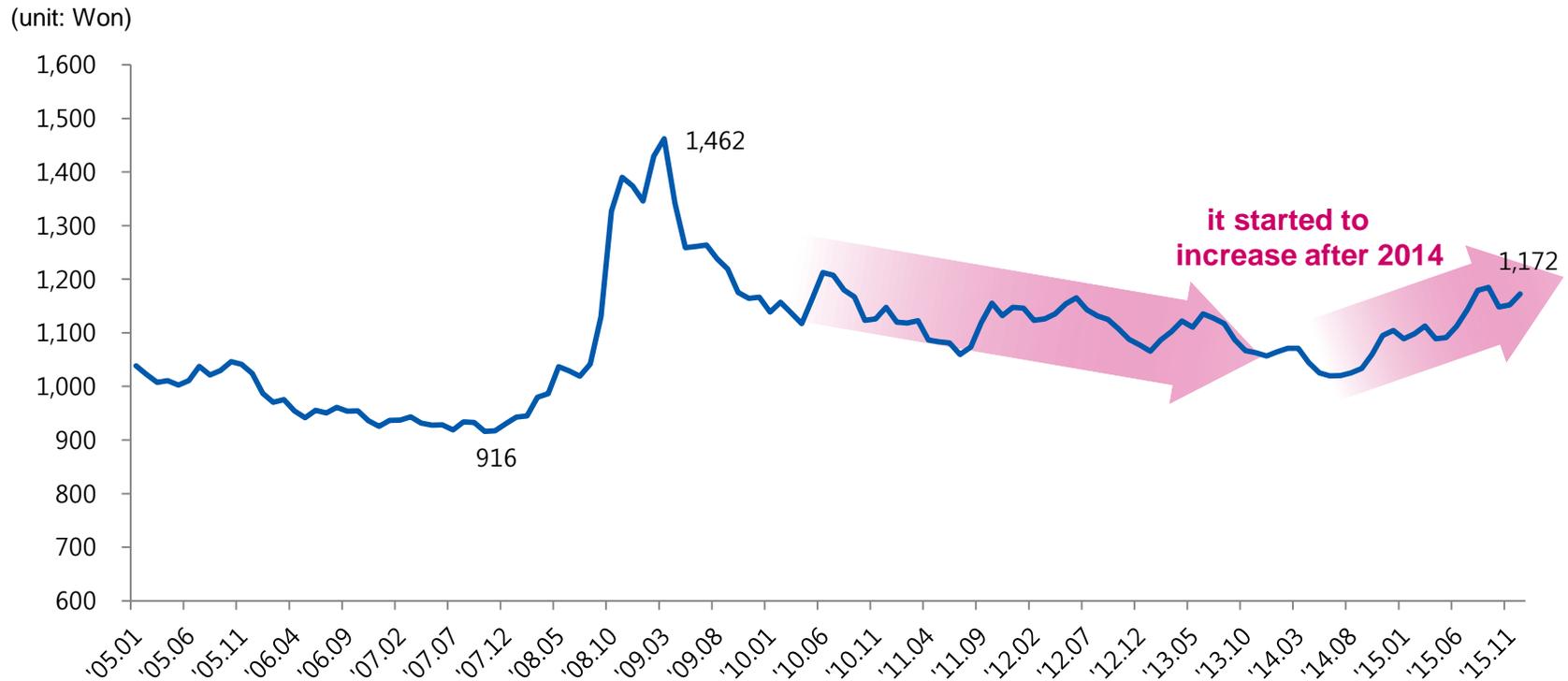
CPI for living necessities, indicating a weighted average of 142 product categories out of 481 which are designated as daily necessities or purchased frequently

Source: NRI based on data from The Bank of Korea, Media Research

## Macroeconomic Trends

**After the Lehman shock, the won/dollar exchange rate fell. However, it started to rise after 2014.**

Won/Dollar exchange rate trends

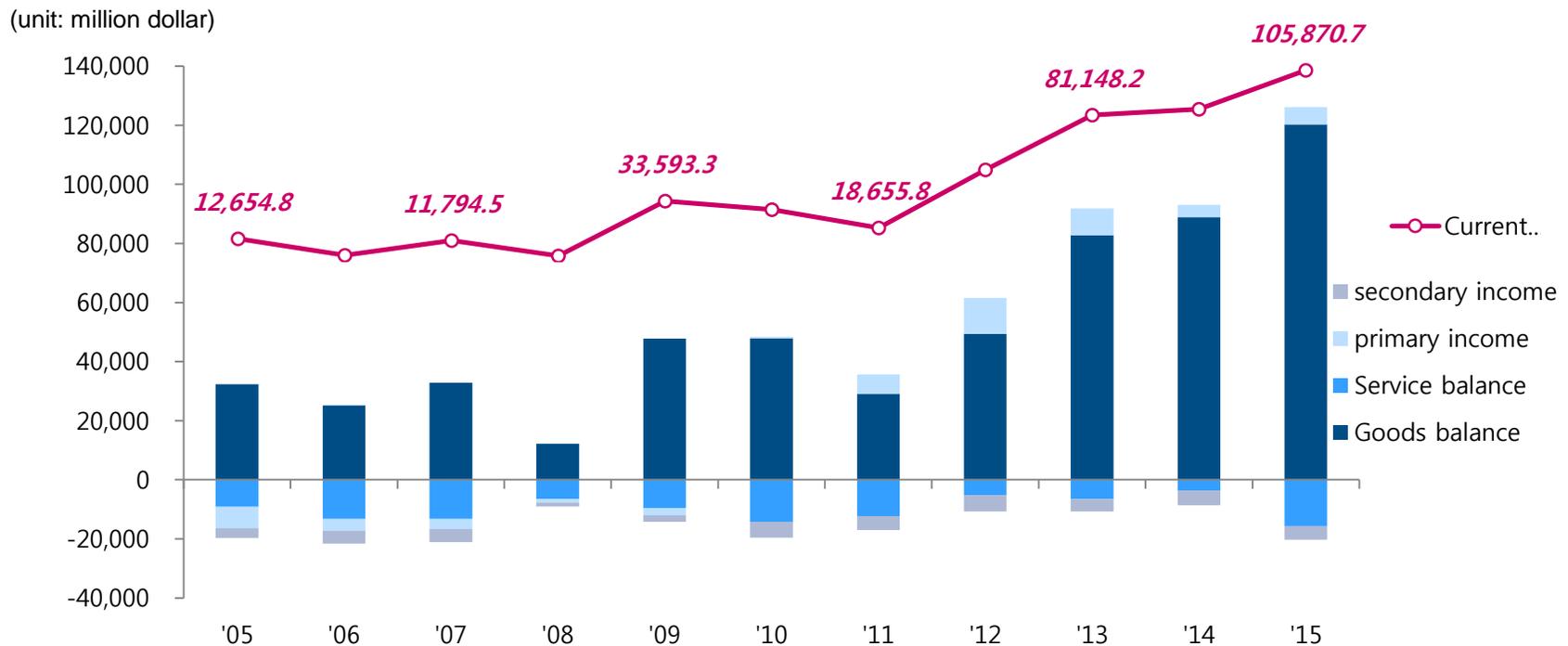


Source: NRI based on Korea bank

## Macroeconomic Trends

**The current account surplus in 2015 was the highest recorded. It derives from the decrease in imports due to the domestic recession.**

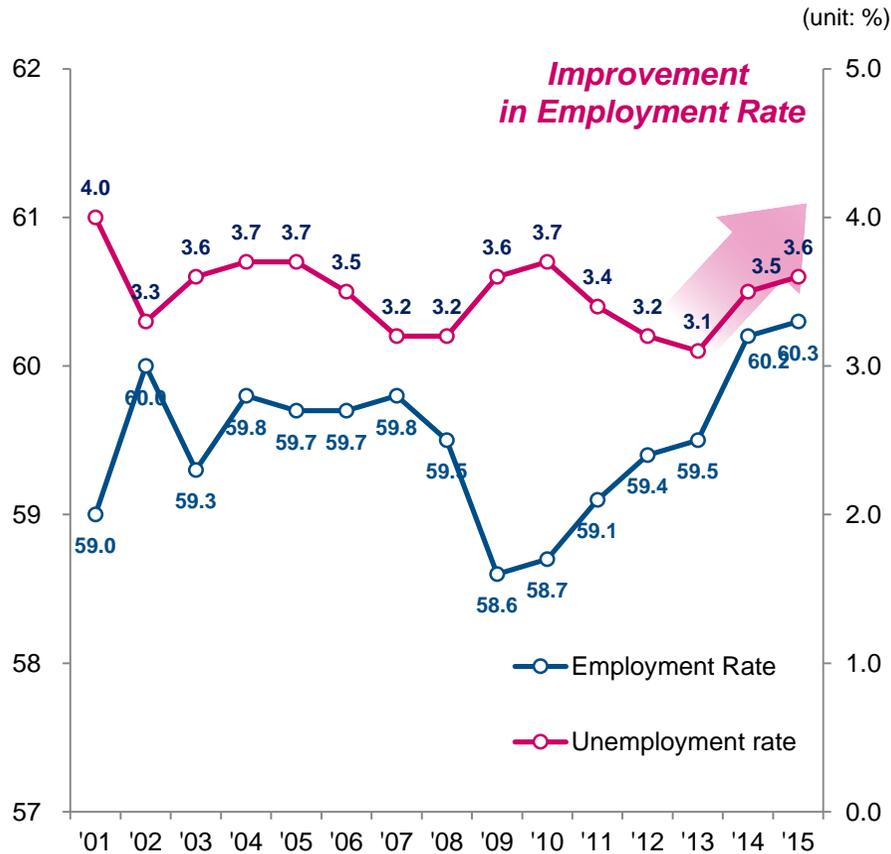
### Current account trends



Source: NRI based on data from Korea bank

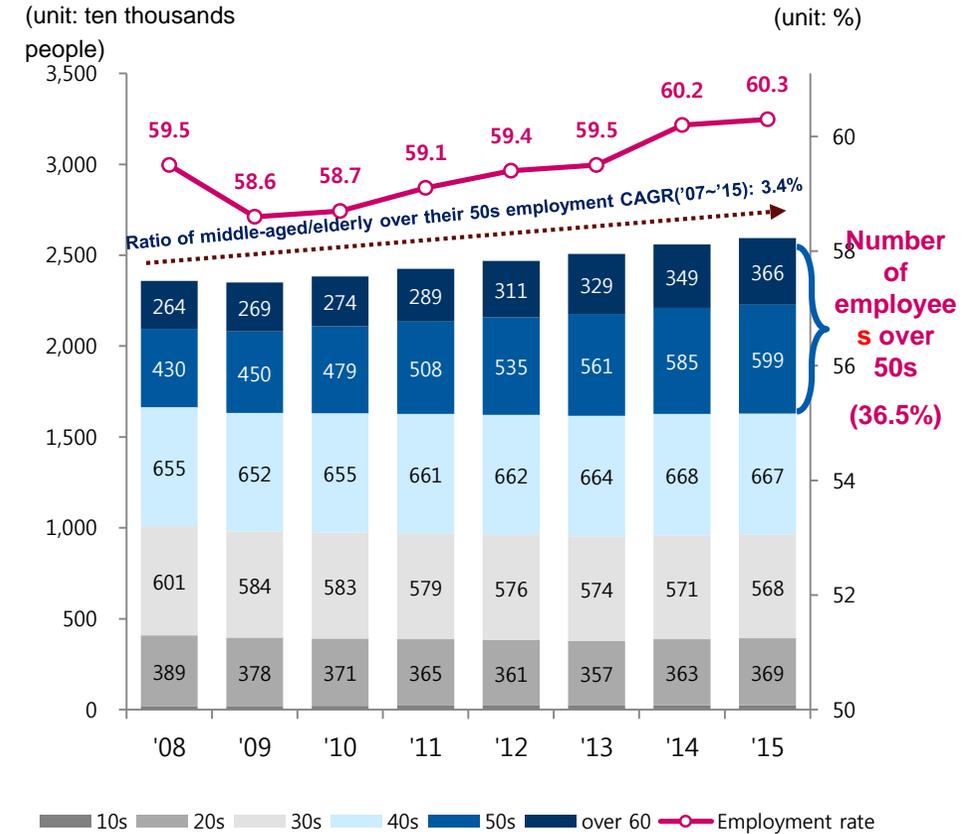
# Both the employment and unemployment rate have risen since 2009, caused by an increase in employment of middle-aged/elderly workers over their 50s.

Employment Rate and Unemployment Rate in Korea



Note: Employment Rate=(employee/population over age 15)x100, Unemployment Rate=(The Unemployed/Economically Active Population)x100

Employment Rate by Age



Source: NRI based on data from National Statistical Office(KOSTAT)

## Korea

Residential and Real Estate Investment are stable although economic stagnation.

1 Population and Macroeconomic

2 Office Market

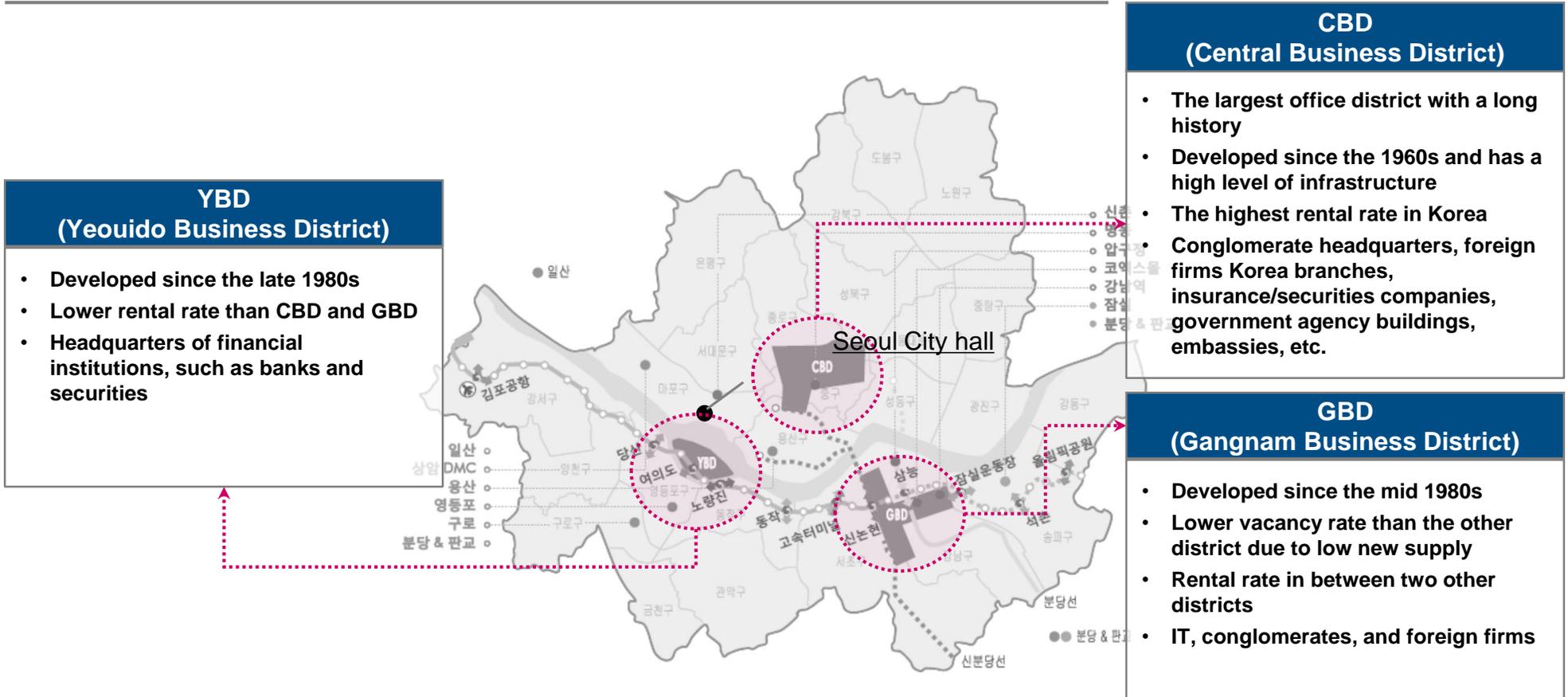
3 House Market

4 Hotel Market

5 Investment Market

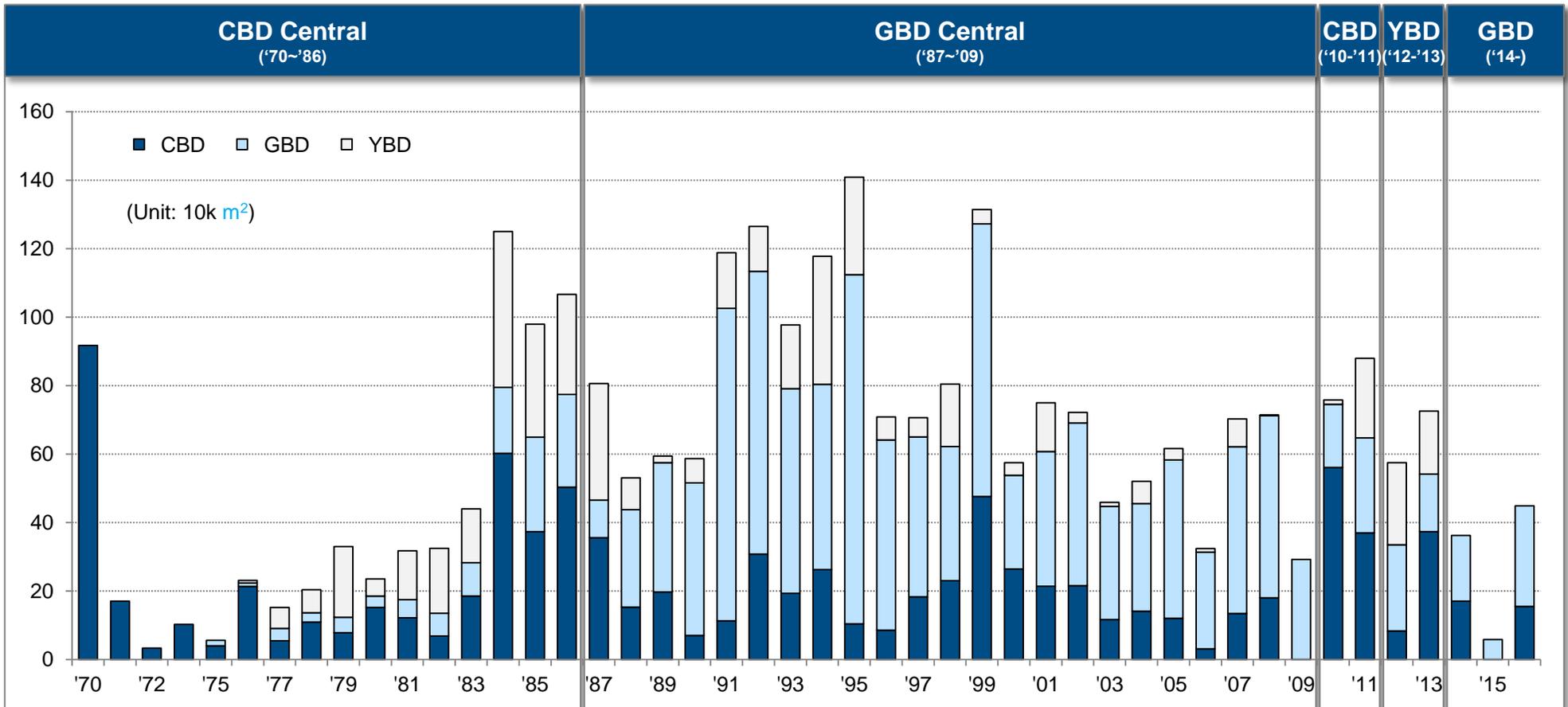
# The Seoul office market is divided into three: CBD: government agencies and conglomerate headquarters; YBD: financial district; GBD: IT district.

Office Market by District in Seoul



# A new supply of offices in CBD and YBD has increased since 2010, and a new supply in GBD is expected to increase after 2015.

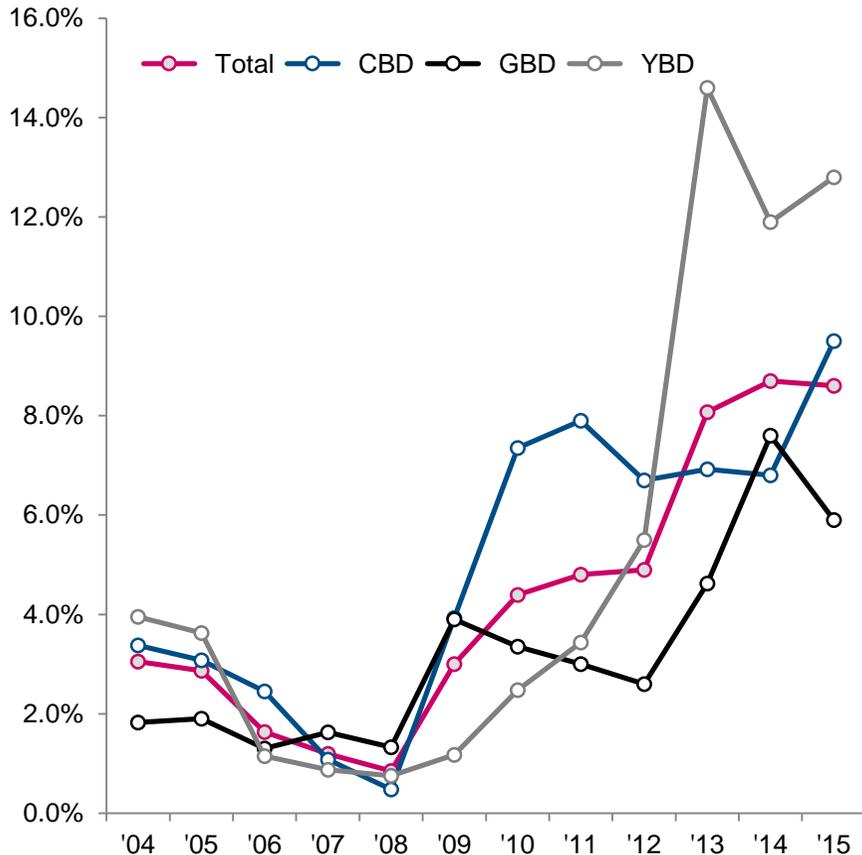
Trends in new supply of offices in Seoul



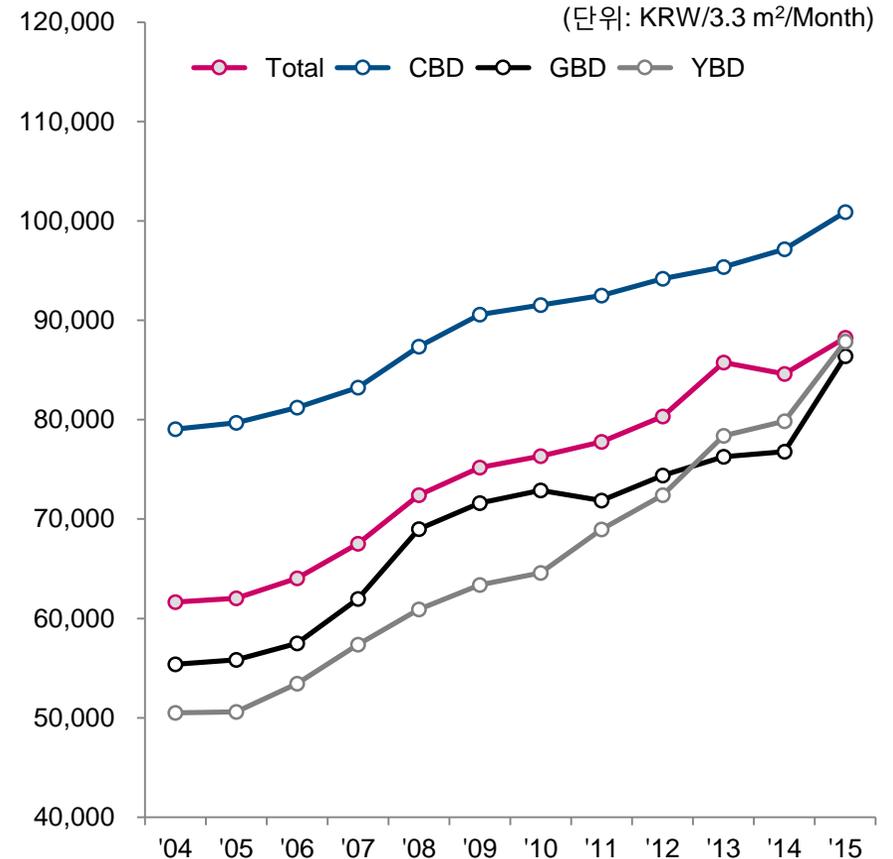
Source: NRI based on Analyst Report

# With a large supply of prime offices in Seoul, the vacancy rate is about 9% and the rental rate is about 85K KRW/3.3m<sup>2</sup>/Month

Vacancy rate of prime offices in Seoul



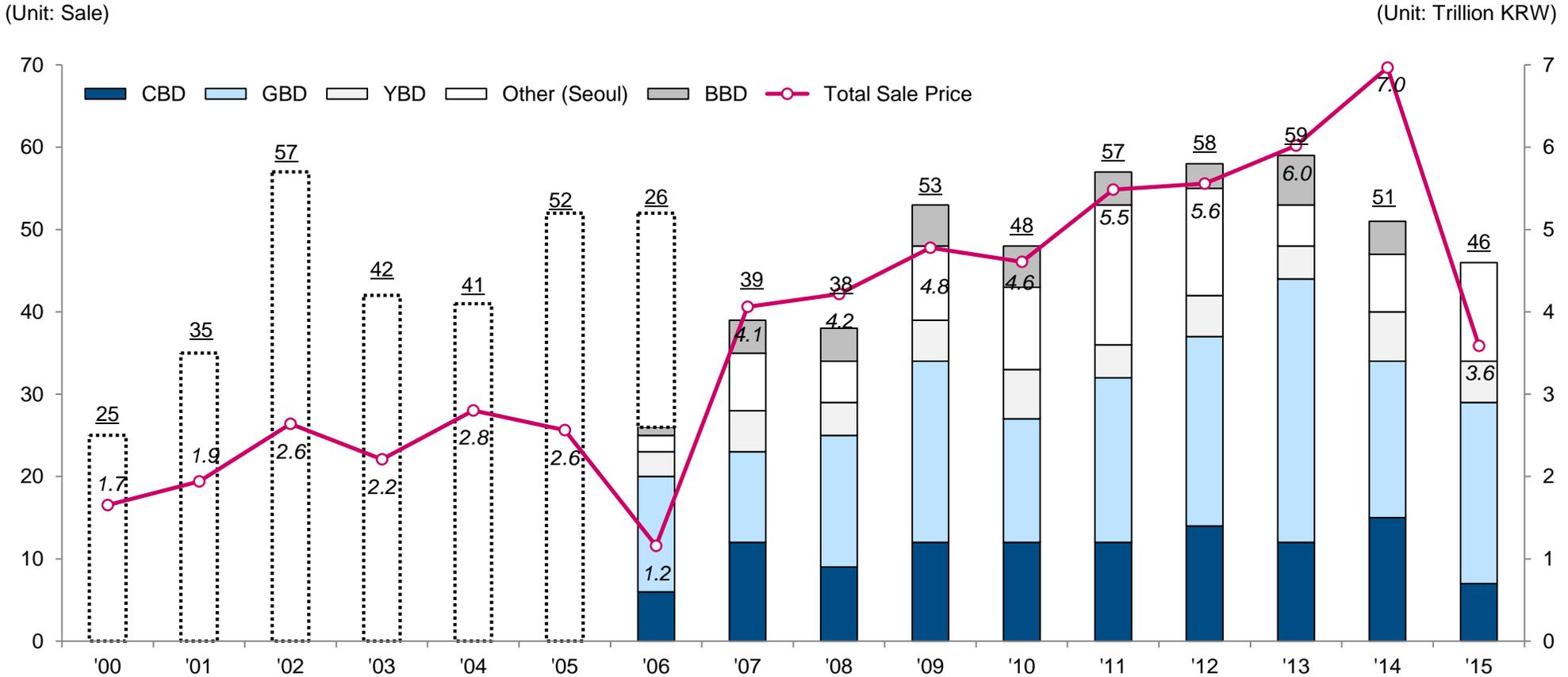
Rental rate of prime offices in Seoul



Source: NRI based on Analyst Report

# The number of major office transactions in Seoul declined to 46 compared to last year, and total sale prices declined as well.

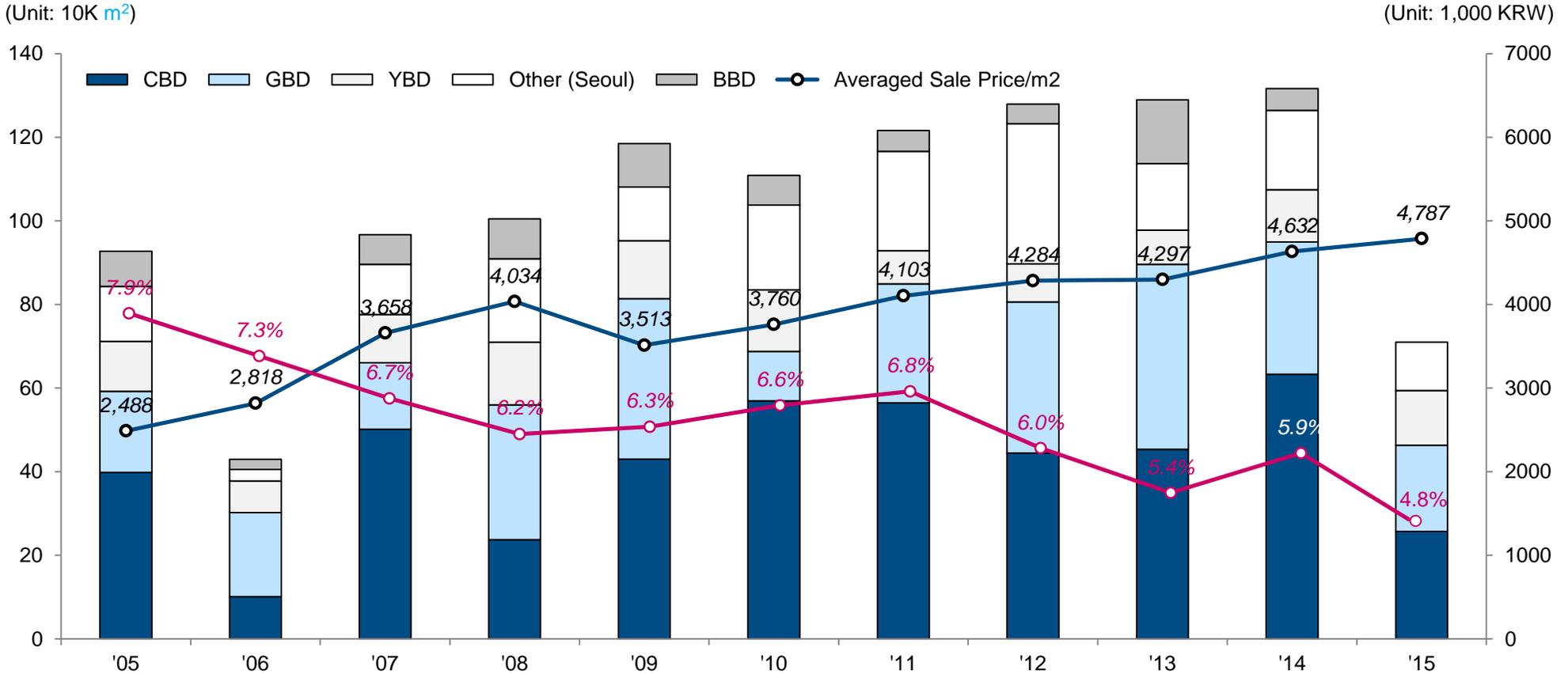
Number of Seoul office sales and total sale prices



Source: NRI based on Analyst Report

# The office sale price was about 4.8M/m<sup>2</sup> and the cap rate was 4.8%.

Sales volume and price/m<sup>2</sup> by office district in Seoul

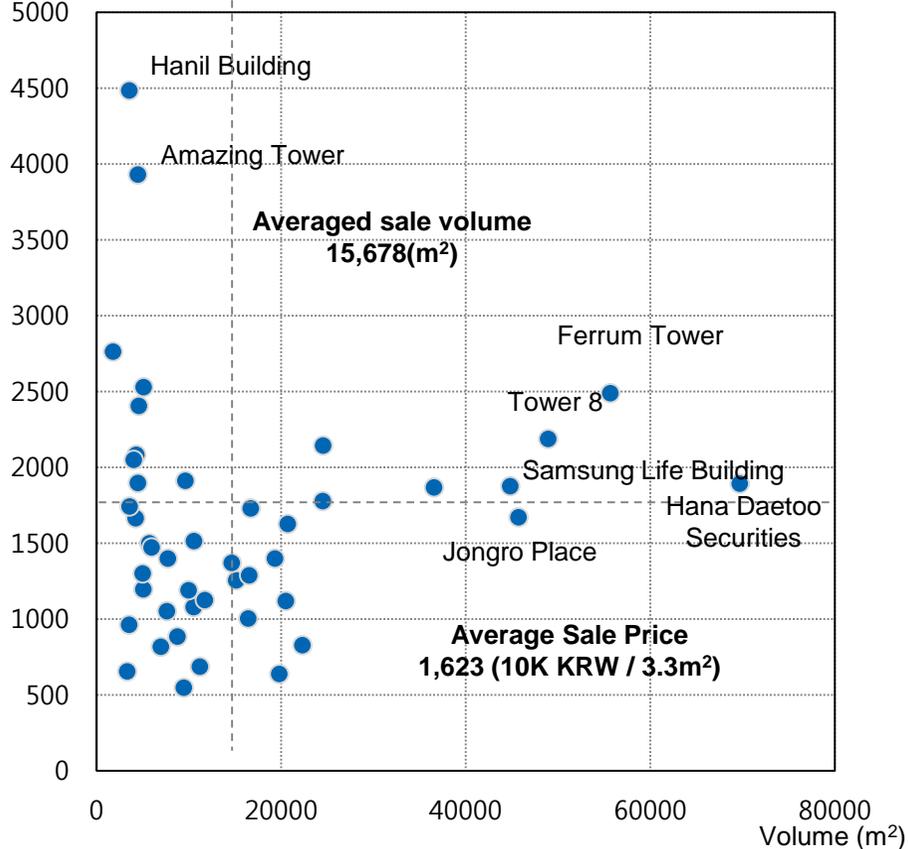


Source: NRI based on Analyst Report

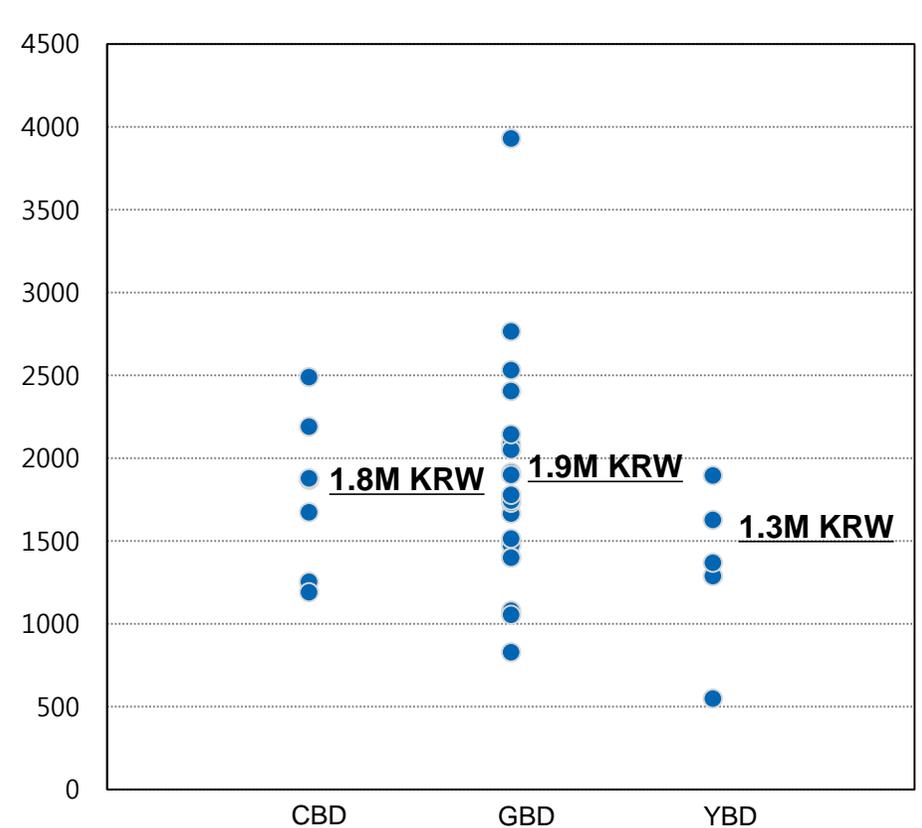
# In 2015, the averaged volume of office sales was 15,000m<sup>2</sup>, and the averaged sale price per 3.3m<sup>2</sup> was about 1.6M KRW.

Sale price per volume by office district in Seoul (2015, property transaction)

(Price: 10K KRW/3.3 m<sup>2</sup>)



(Unit: 10K KRW/3.3 m<sup>2</sup>)

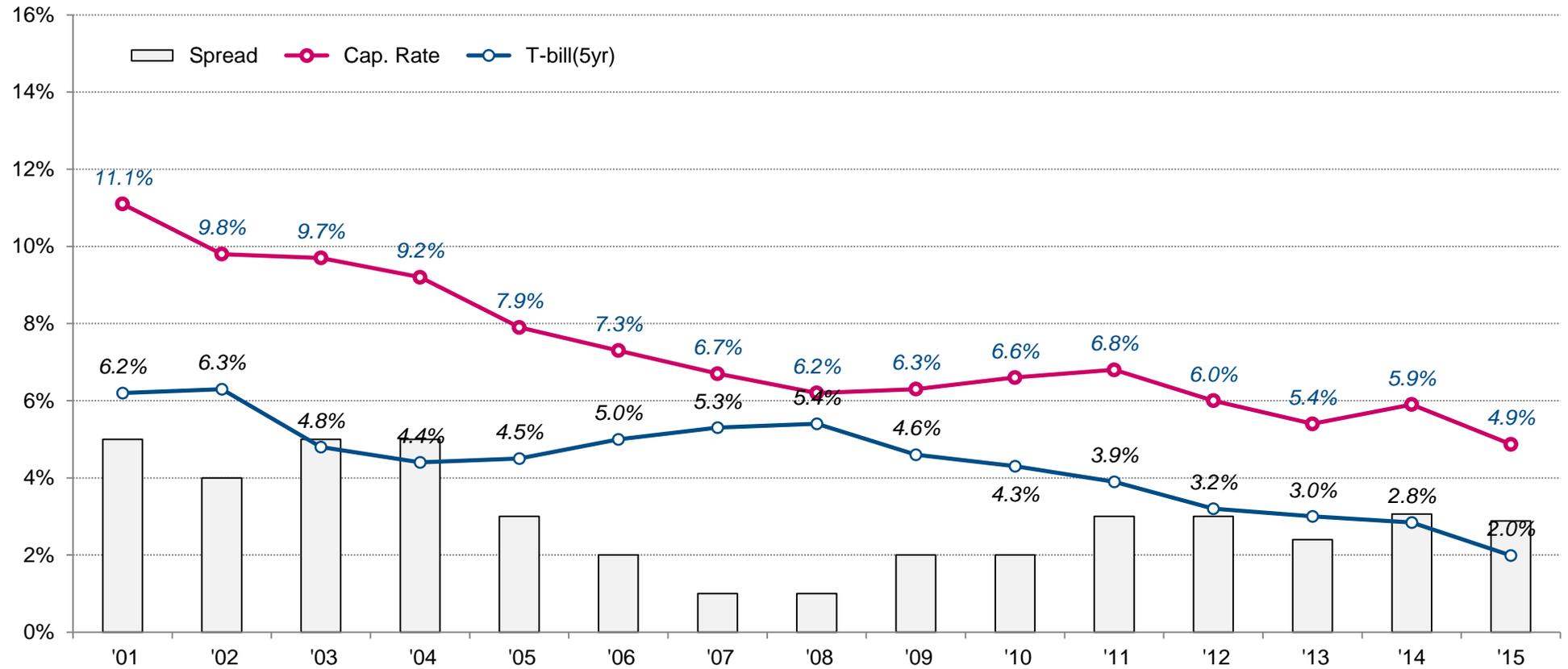


Note: Analysis of 37 office transactions in CBD, GBD and YBD in 2014 / Total Consumer Spending=Consumer Spending+Government Spending / \*\*Forecast based on IMF released data  
Source: NRI based on Analyst Report

# The office market cap rate in 2015 was about 5% and the spread over a 5yr T-bill was 3%.

Trend in Seoul office cap rate and T-bill

(Unit: %)



Source: NRI based on Media Research

## Korea

Residential and Real Estate Investment are stable although economic stagnation.

1 Population and Macroeconomic

2 Office Market

3 House Market

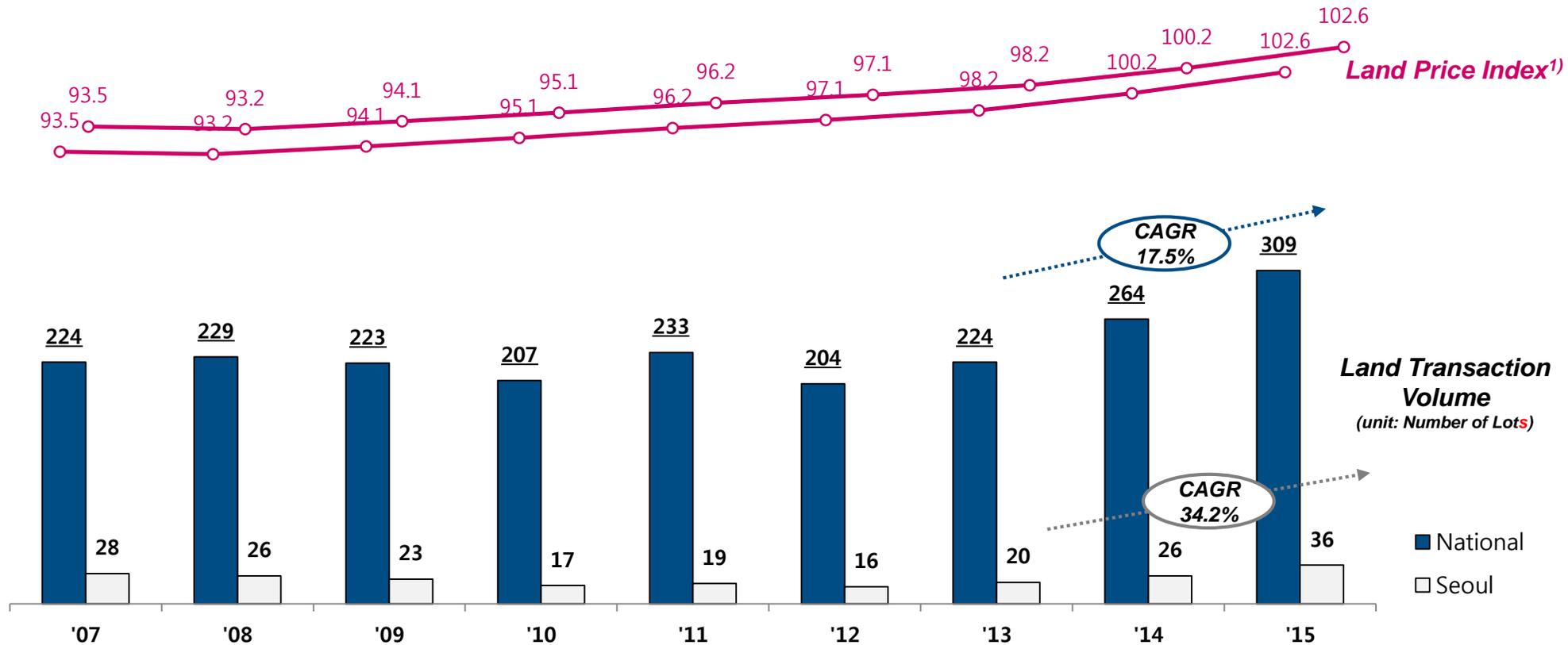
4 Hotel Market

5 Investment Market

## The land price index and the land transaction volume show a gradual upward trend.

Land Transaction Volume and Land Price Index<sup>1)</sup>

(Lot unit: 10 thousand number of case )



Note: 1) Based on Land Price Index: 2014.12.1 = 100

Source: NRI based on data from Real Estate Official Statistics Network (<http://www.r-one.co.kr>)

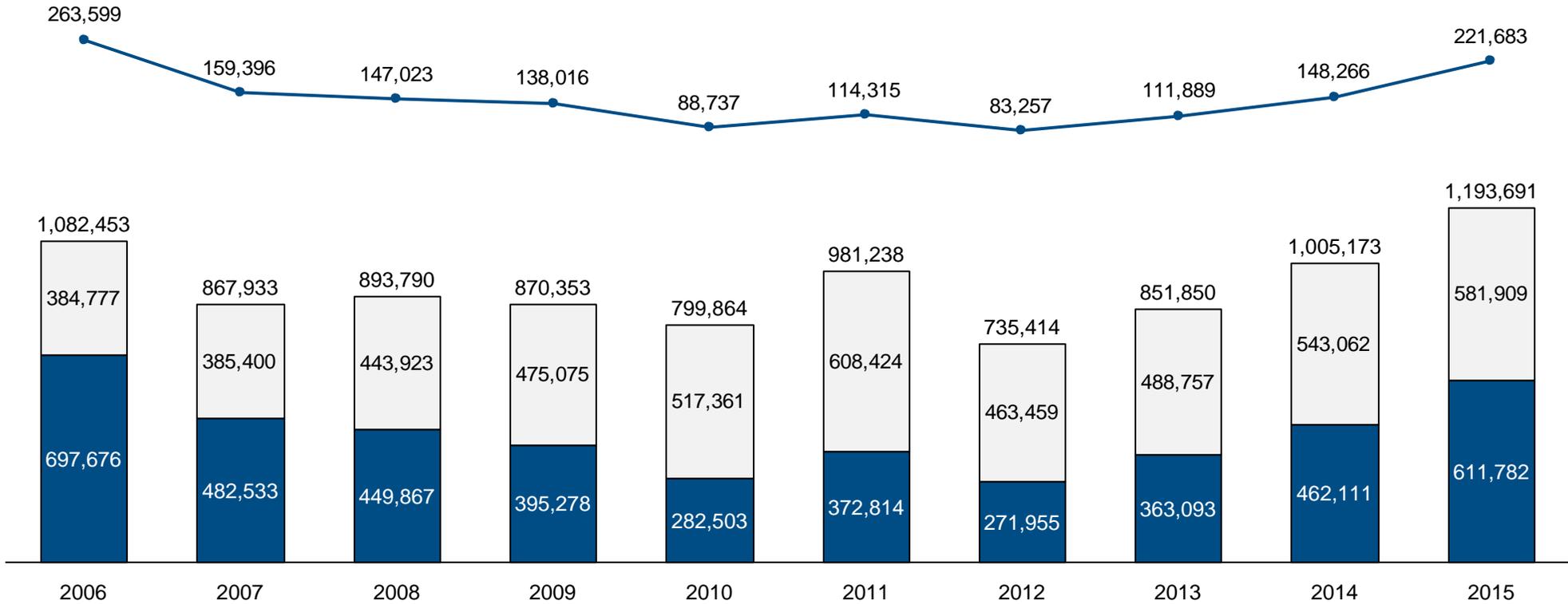
**The housing transaction volume reached its peak in 2006. Although it had shown a general declining trend since 2007, it started to bounce back since 2012.**

Transition of National Housing Transaction Volume

(Unit: number of transactions)

Rural Area
  Capital Area
  Seoul

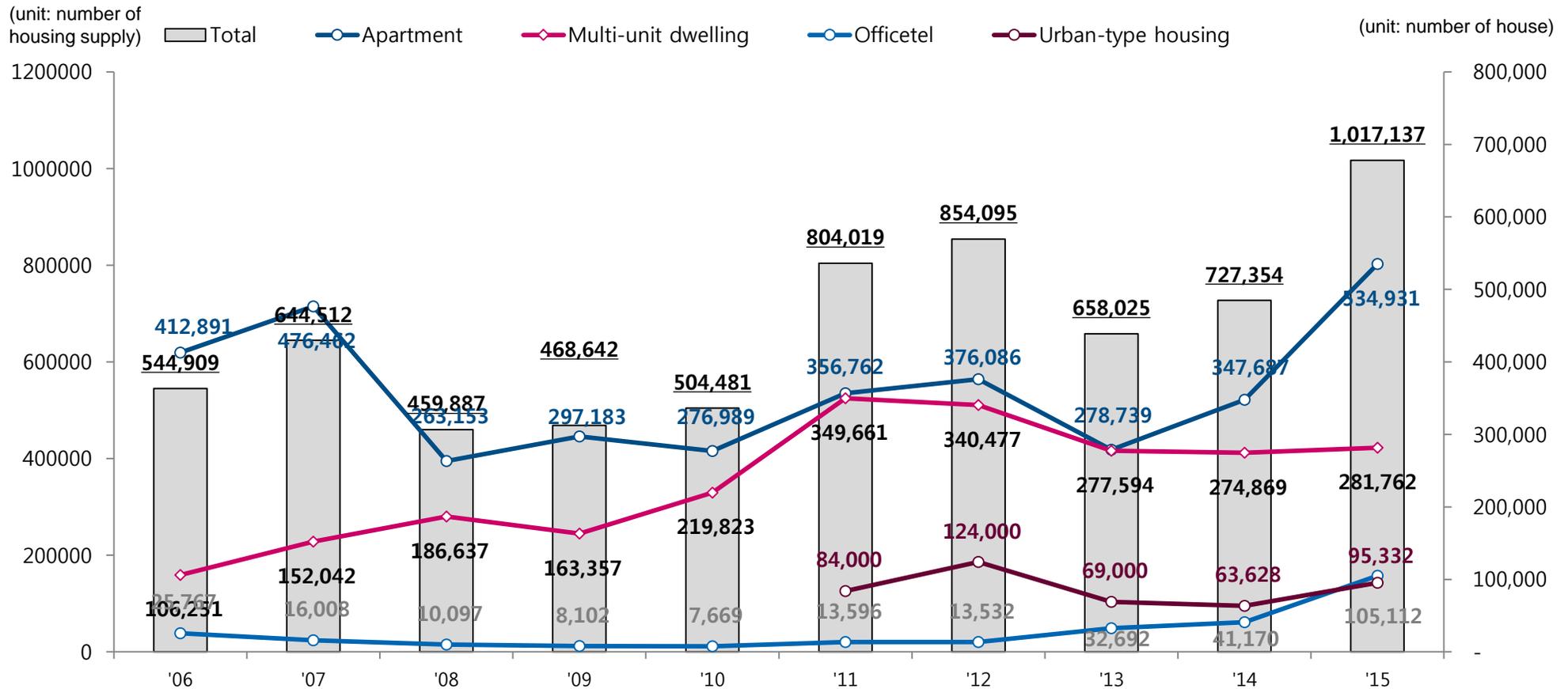
*Transaction volume of metropolitan area accounts for about 51% of that of nationwide*



Source: NRI based on data from Onnara Real Estates(<http://www.onnara.go.kr>)

# The supply of housing units increases since 2013, especially in apartments. In 2015, about one million units are newly supplied.

Housing supply by types of housing

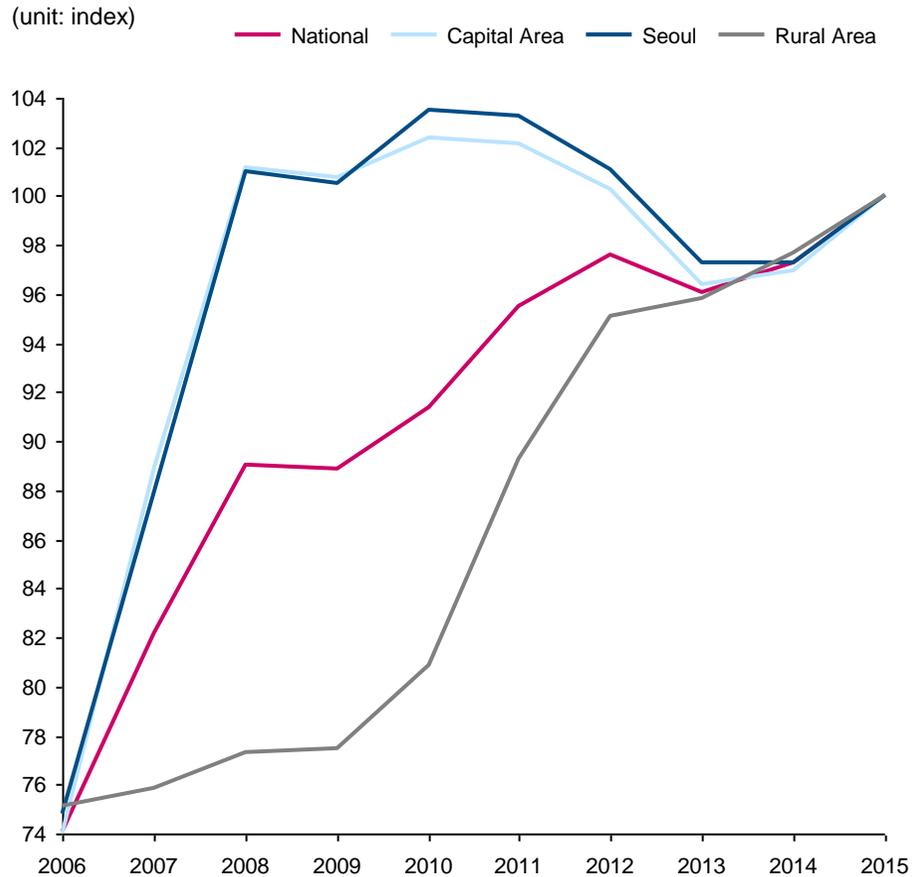


\* Official statistics of Ministry of Land, Infrastructure, and Transportation exclude some officetel and urban-type housing data, so the gross supply units in this report are different from the official statistics.

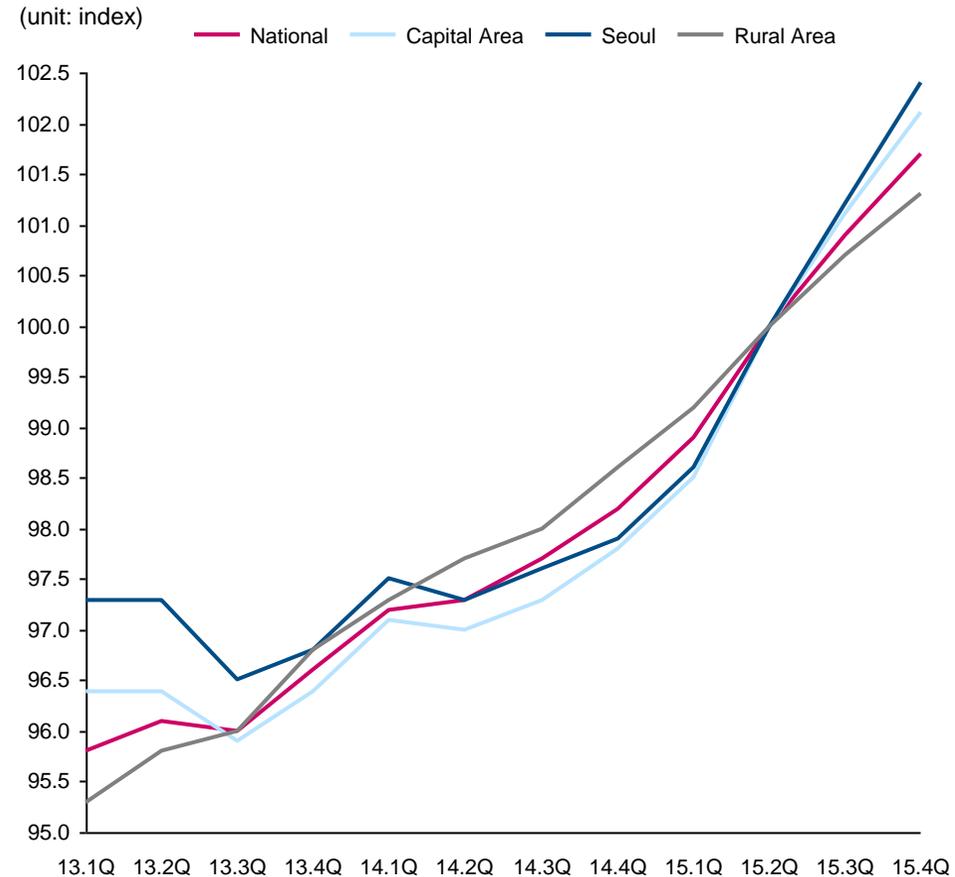
Source: NRI based on statistics of Ministry of Land, Infrastructure, and Transportation

# The average Housing Price Index has increased since 2013. The Housing Price Index in Seoul and the metropolitan area recovered rapidly.

*Housing Price Index (10 years)*



*Housing Price Index (3 years)*



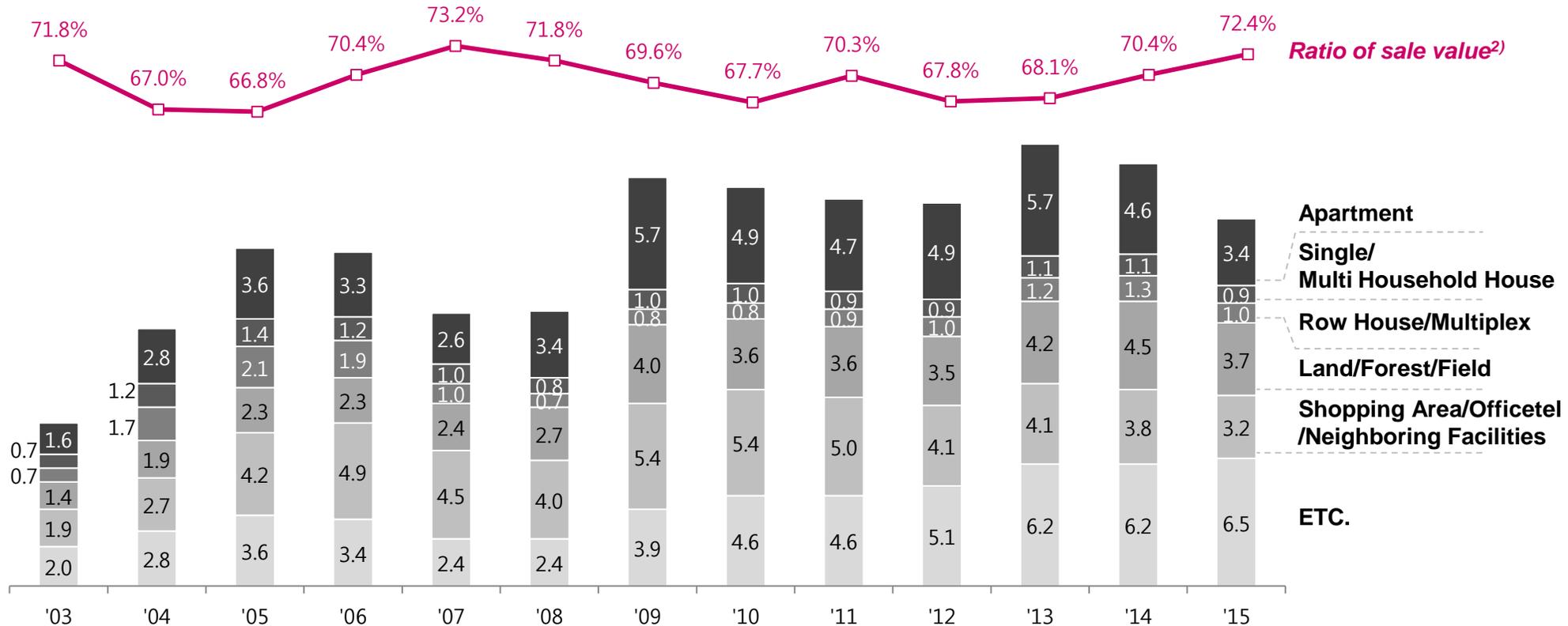
Note: Standard of National Housing Price Index: June in 2015 = 100

Source: National Statistical Office

# The size of overall auctioned assets has decreased, and the ratio of sale value has increased since 2013.

Size of Auctioned Assets<sup>1)</sup> and ratio of sale value<sup>2)</sup>

(Unit: trillion KRW)

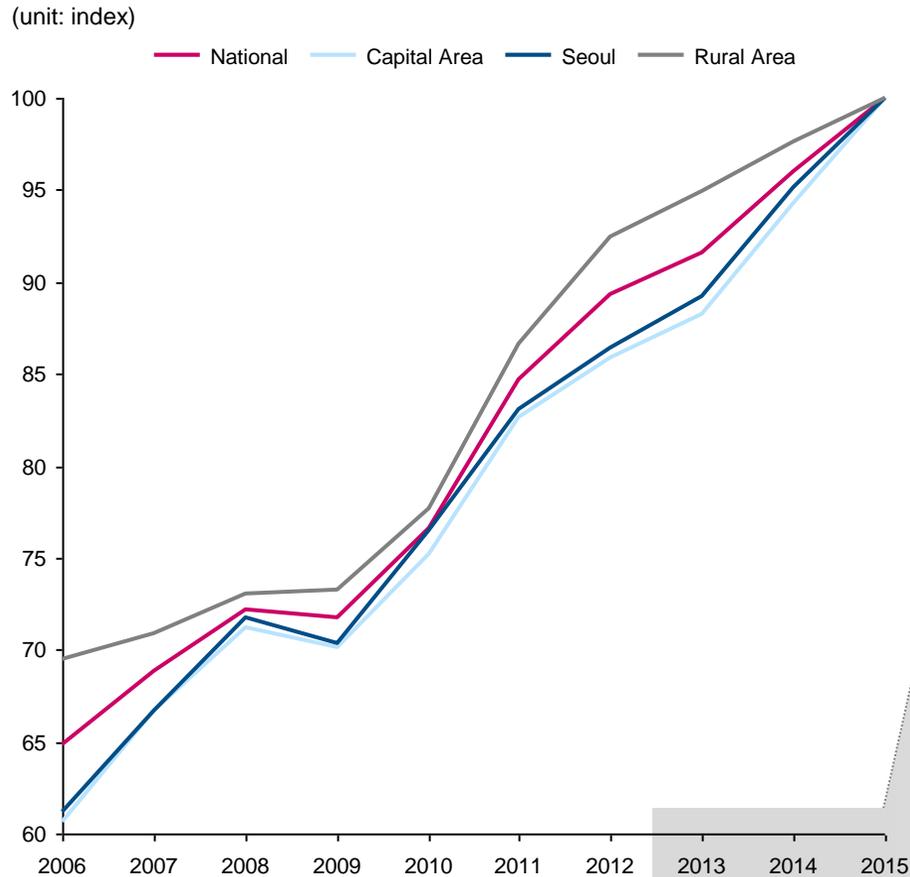


Note: 1) Size of Auctioned Assets is based on Assessed Value, 2) Ratio of sale value = (Sale value / Appraised Value) \* 100

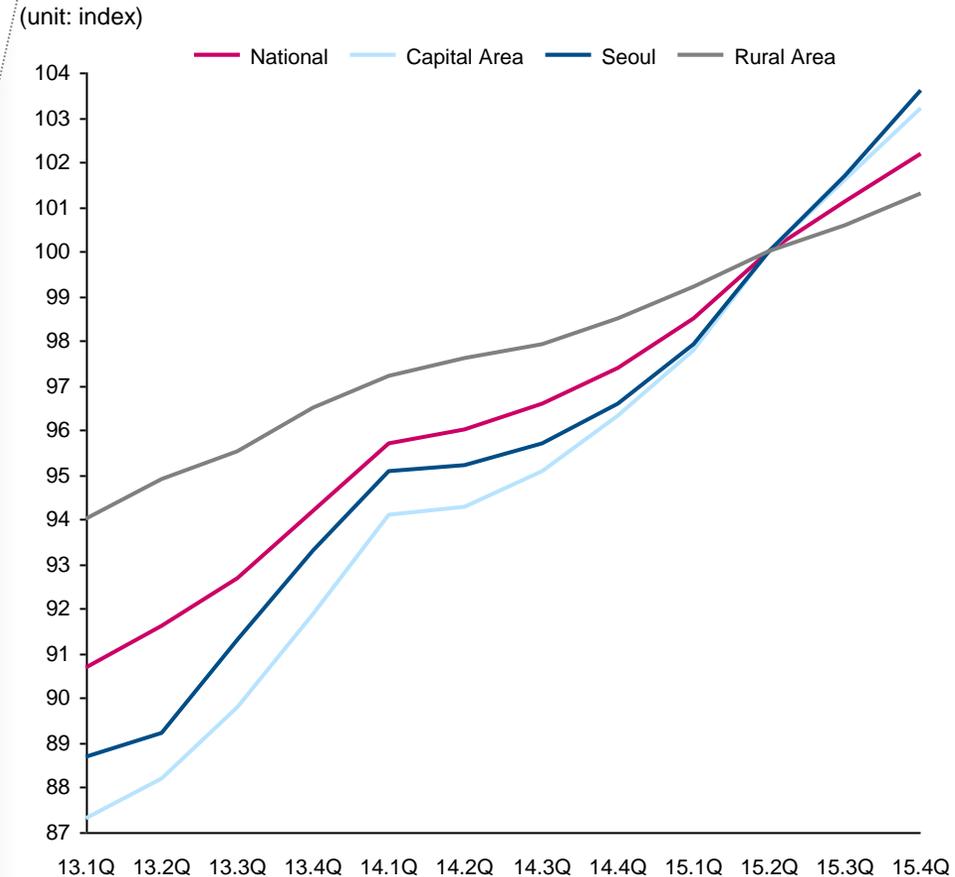
Source: NRI based on data from Auction Statistics of Supreme Court

# The Jeonse(House Lease) index has consistently illustrated an upward trend for ten years. In particular, the index in Seoul and the metropolitan area is increasing rapidly.

Jeonse Index of Nationwide/capital Area (10 years)



Jeonse Index of Nationwide/capital Area (3 years)



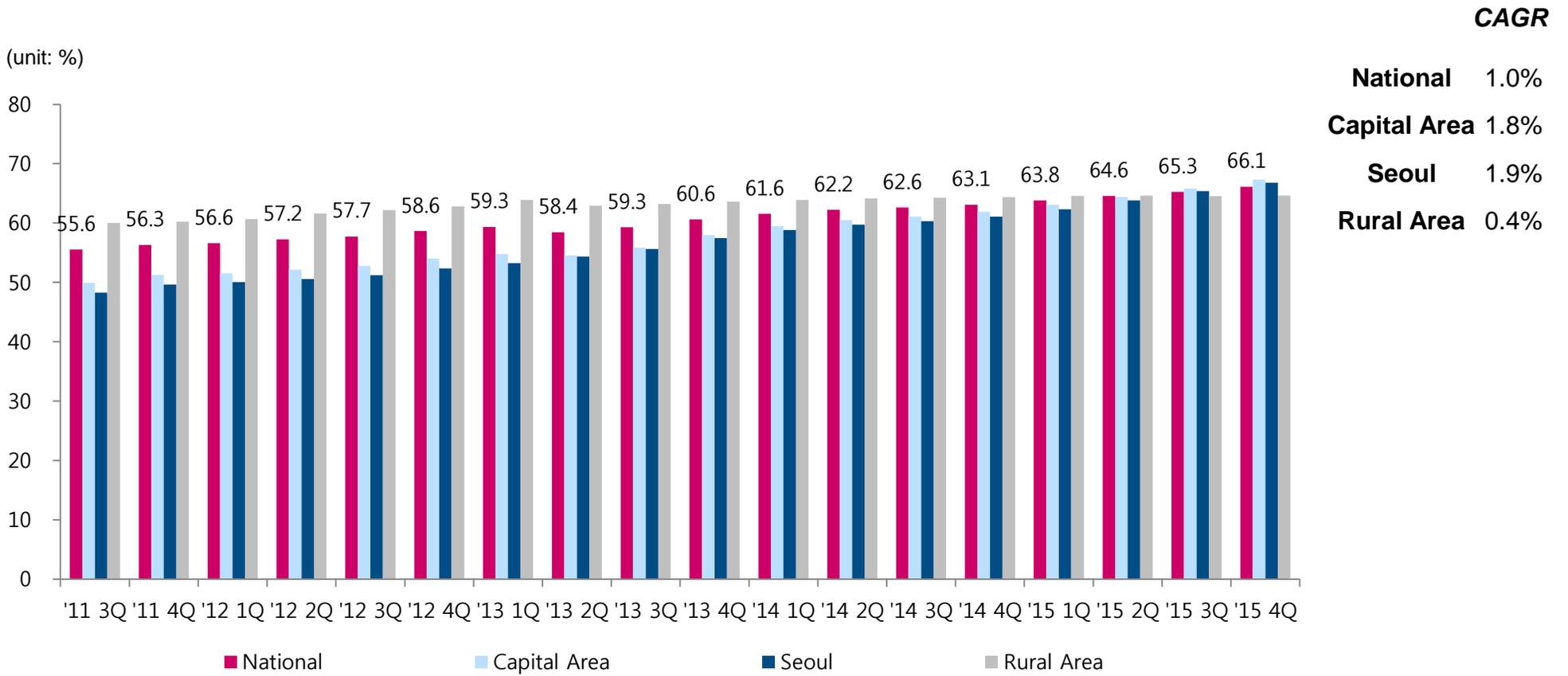
\* Jeonse refers to the way houses are leased. Instead of paying monthly rent, a renter will make a lump-sum deposit on a rental space, at anywhere from 50% to 80% of the market value.

Note: Based on National House Lease Index: June in 2015 = 100

Source: NRI based on Korea Appraisal Board

**The Jeonse cost is about 66% of the Housing price. The Jeonse cost rate is rising continuously, especially in Seoul and the capital area.**

*National Jeonse Cost to Housing Price*

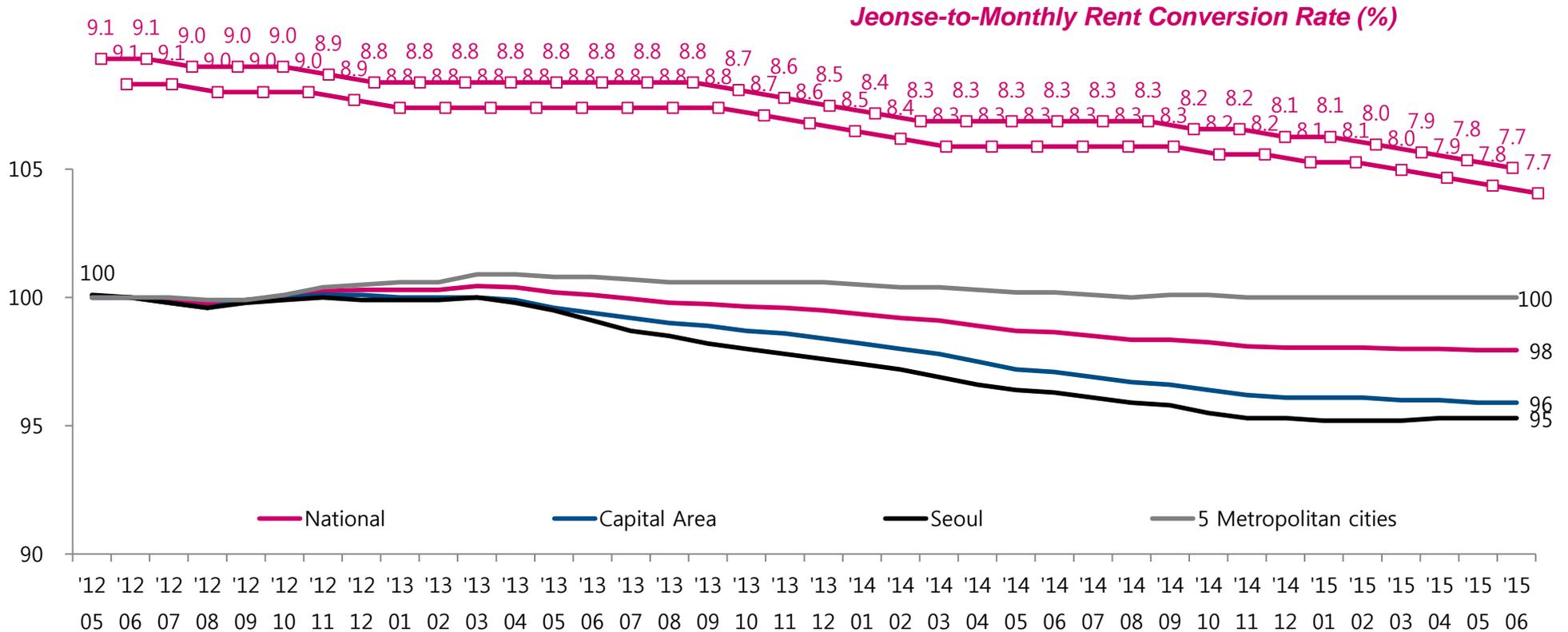


Source: NRI data from based on KB Bank

# Monthly Rent Index decreases since 2013, especially Seoul and the capital area. Jeonse-to-Monthly Rent Conversion Rate also decreases gradually.

Monthly Rent Index and Jeonse-to-Monthly Rent Conversion Rate<sup>1)</sup>

(unit: index)



\* 1) Rate of changing Jeonse to monthly rent ((Monthly Rent x 12)/(Jeonse-Deposit of Monthly Rent))  
It is different from profit rate of monthly rent because it is affected by Jeonse as well.

Source: NRI based on data from Korea Appraisal Board

## Korea

Residential and Real Estate Investment are stable although economic stagnation.

1 Population and Macroeconomic

2 Office Market

3 House Market

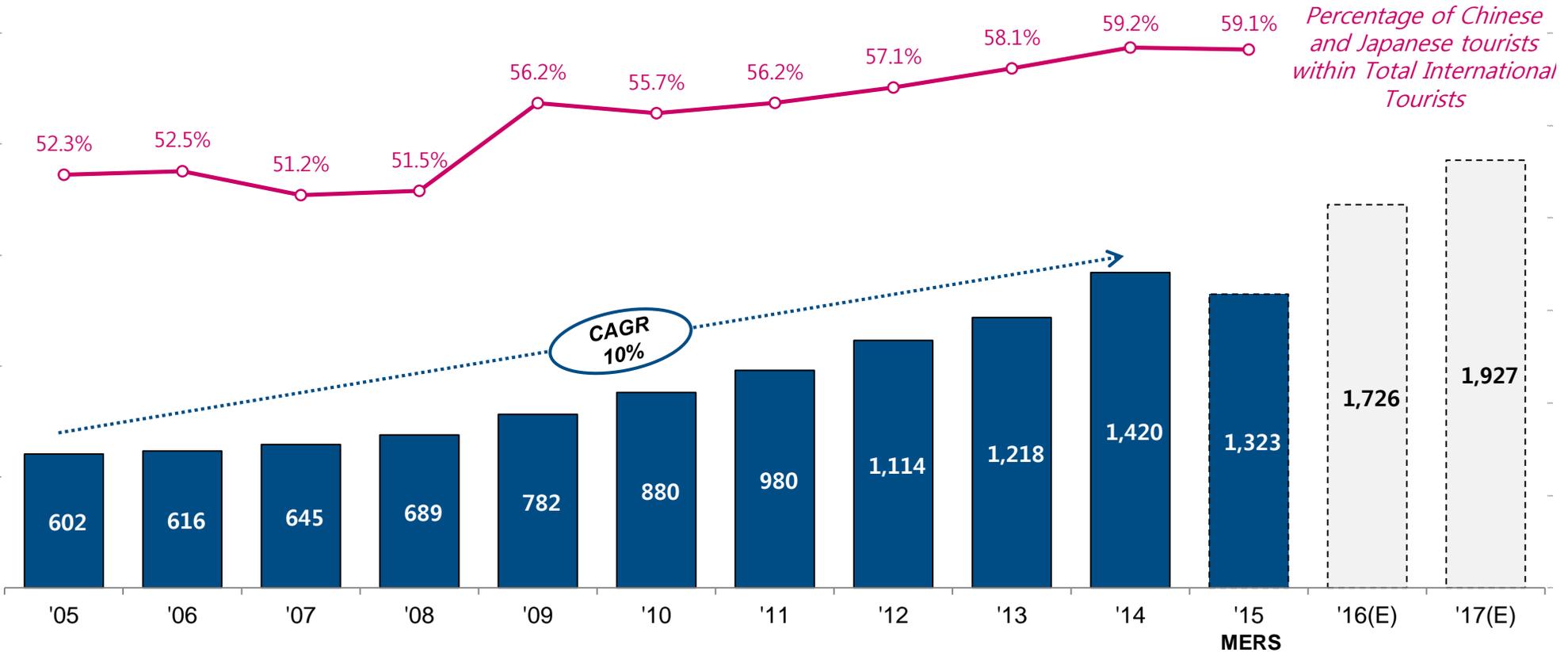
4 Hotel Market

5 Investment Market

**The number of international tourists visiting Korea increased with an average growth rate of 10% in the last decade, and exceeded 14 million in 2014. But it slightly declined in 2015 because of MERS.**

*Numbers of International Tourists Visiting Korea and Expectation*

(unit: 10 thousand people, % )

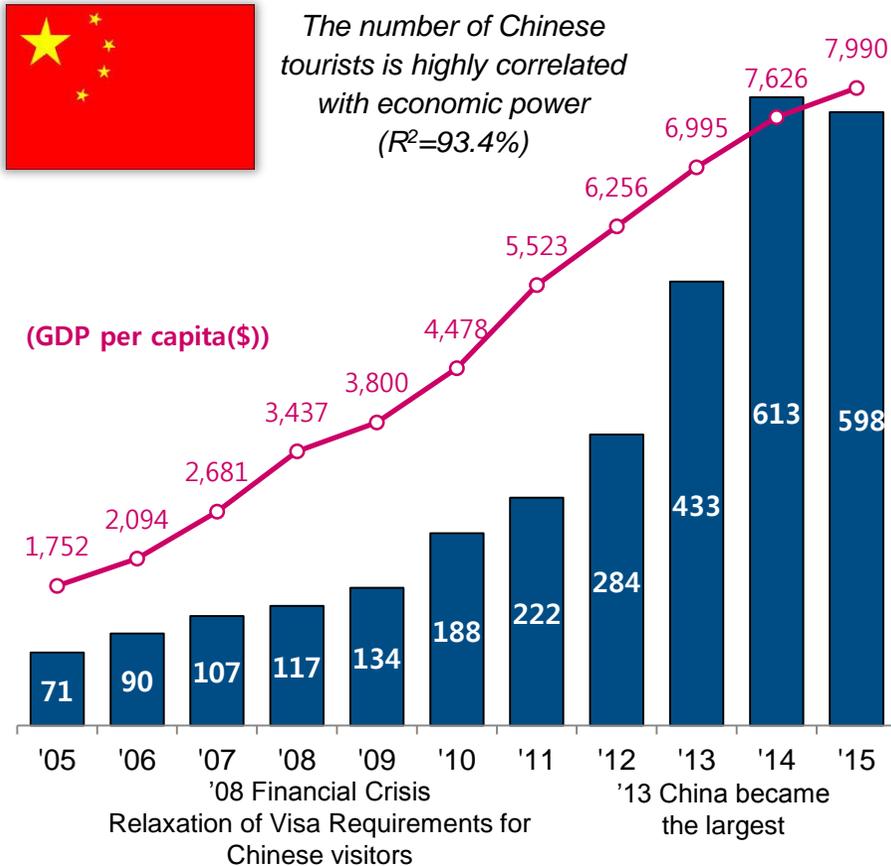


Source: NRI based on data from Tourism Knowledge and Information System, Media Research

# Chinese tourists account for the largest percentage after 2013. The number of Japanese tourists declined due to a change in the exchange rate after 2012.

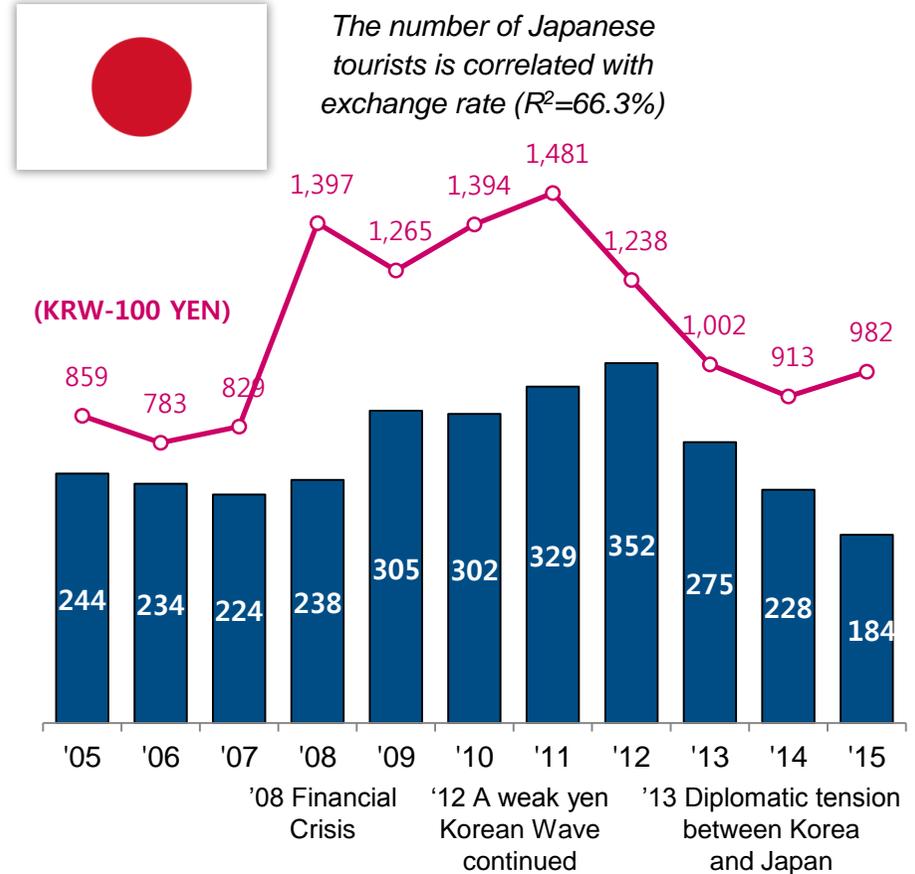
Number of Chinese Tourists Visiting Korea

(unit: 10 thousand people)



Number of Japanese Tourists Visiting Korea

(unit: 10 thousand people)

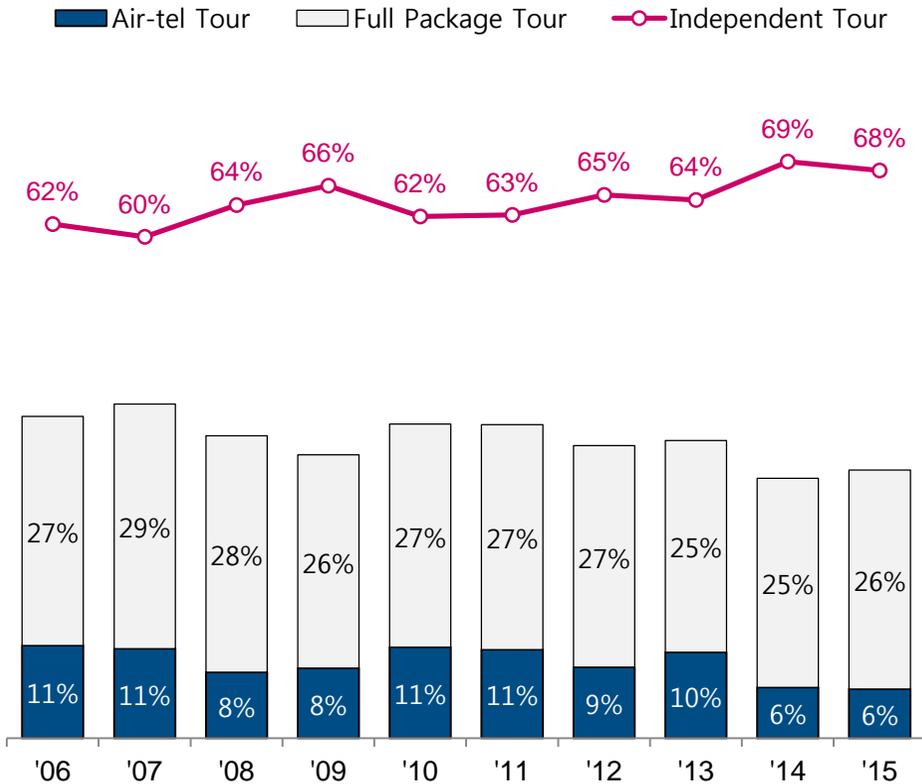


Source: NRI based on data from Tourism Knowledge and Information System, Nara Indexes of National Statistical Office(KOSTAT), World Bank(World Economic Outlook)

# Independent Tourists comprise the majority of international tourists. Average length of stay declined after 2013, caused by consistent decrease in Chinese Travelers' length of stay

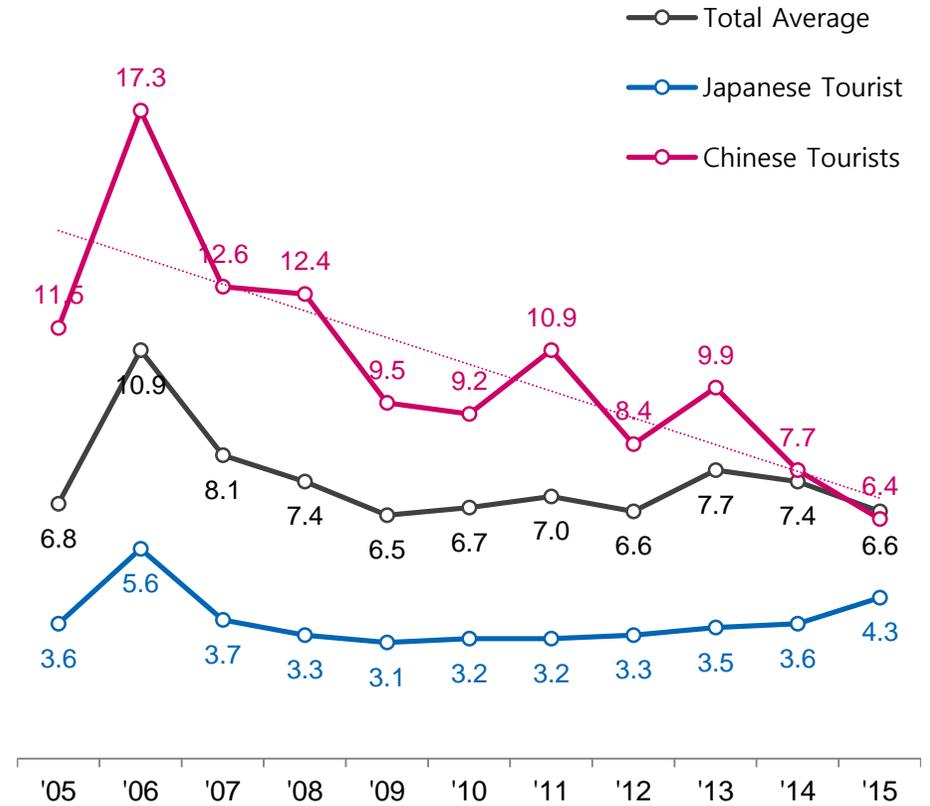
Types of International Tourist

(unit: %)



Average Length of Stay of International Tourists

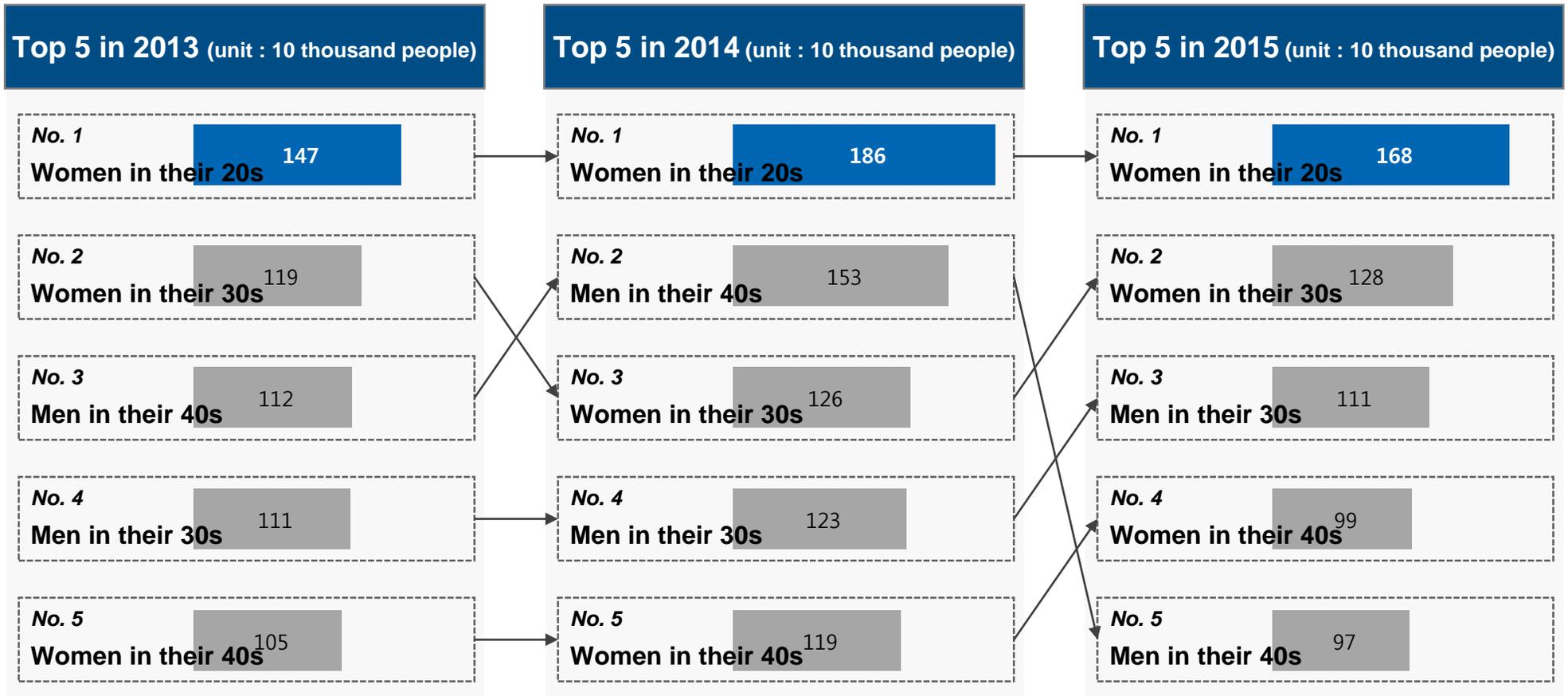
(unit: day)



Source: NRI based on data from Ministry of Culture, Sports, and Tourism, International Tourists Reports, Tourism Knowledge and Information System

# Female international tourists in their 20's are largest in volume, followed by female international tourists in their 30's and male international tourists in their 30's.

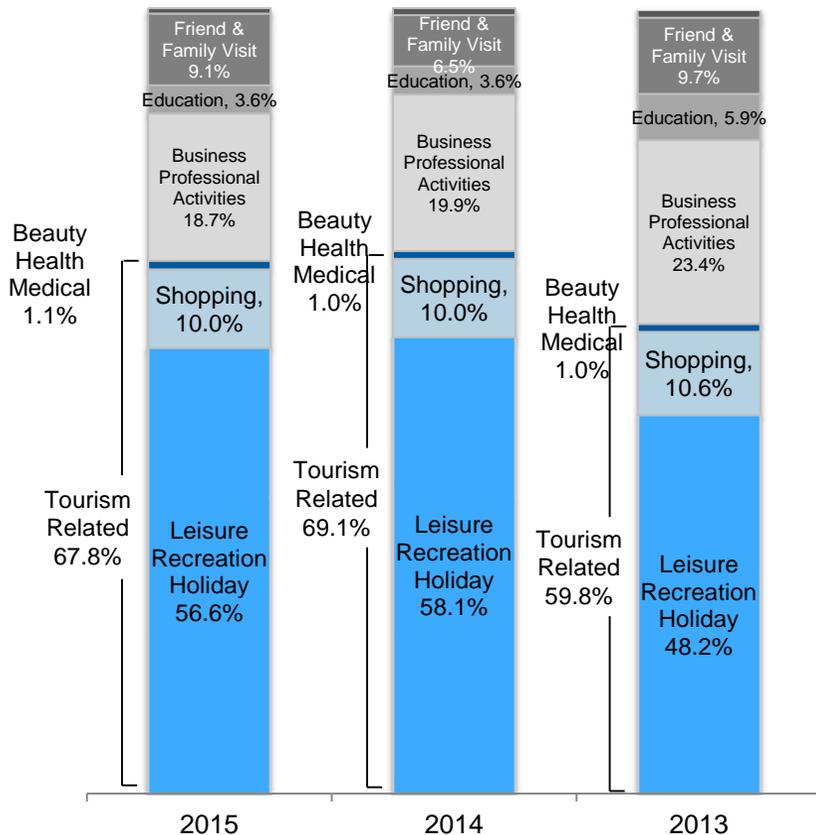
International Tourists by Sex and Age



Source: NRI based on data from Ministry of Culture, Sports, and Tourism, International Tourists Reports, National Statistical Office(KOSTAT)

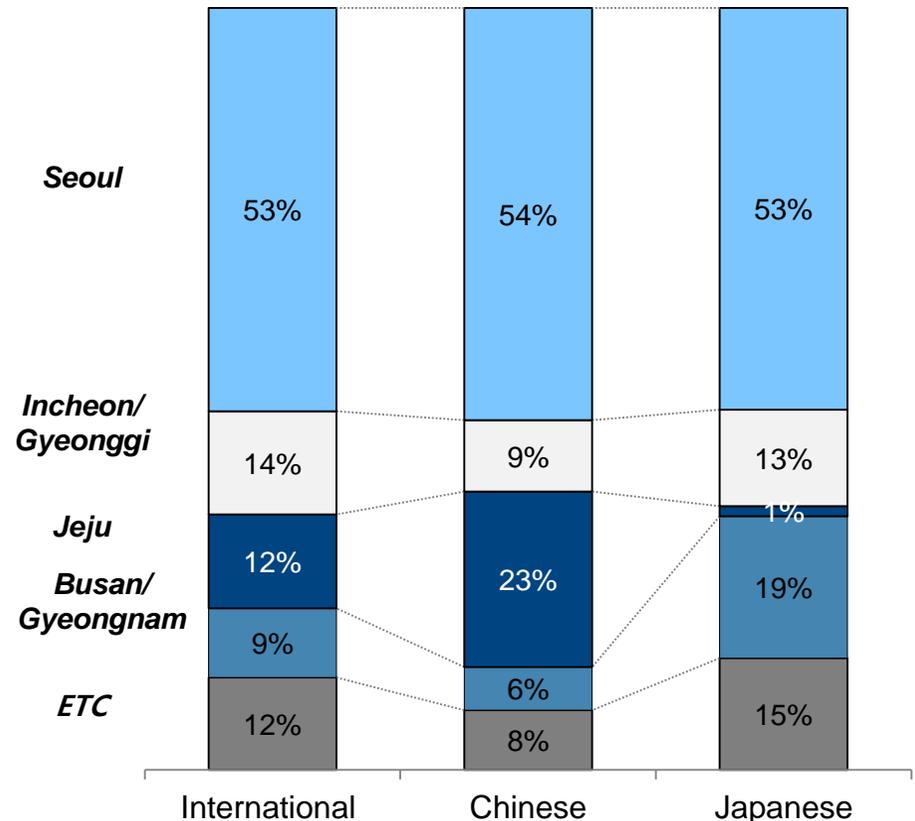
**The purpose of international tourists is sightseeing, accounting for about 70%. Chinese tourists tend to mainly visit Seoul and Jeju, and Japanese tourists cover Seoul and Busan.**

*Purpose of international tourists visiting Korea (2013~2015)*



*Visit Places of International Tourists in Korea\*(2014)*

(unit : %, Duplicated Answers Adjusted)



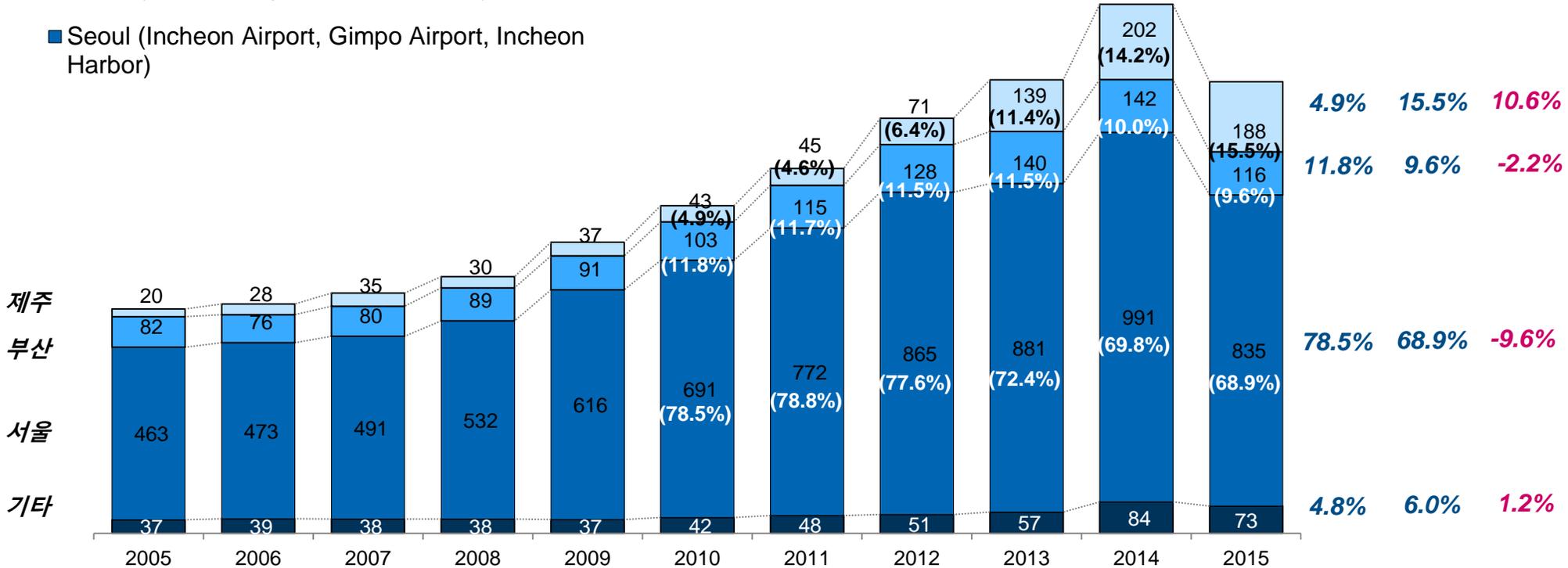
Source: NRI based on data from Tourism Knowledge and Information System

**About 70% of international tourists enter Korea through Seoul (Incheon Airport, Gimpo Airport, Incheon Harbor). The number of tourists entering Korea through Jeju has increased due to an increase in Chinese tourists.**

Entrance Place by International Tourists

(unit: 10 thousand people)

- Jeju(Jeju Airport)
- Busan(Gimhae Airport, Busan Harbor)
- Seoul (Incheon Airport, Gimpo Airport, Incheon Harbor)

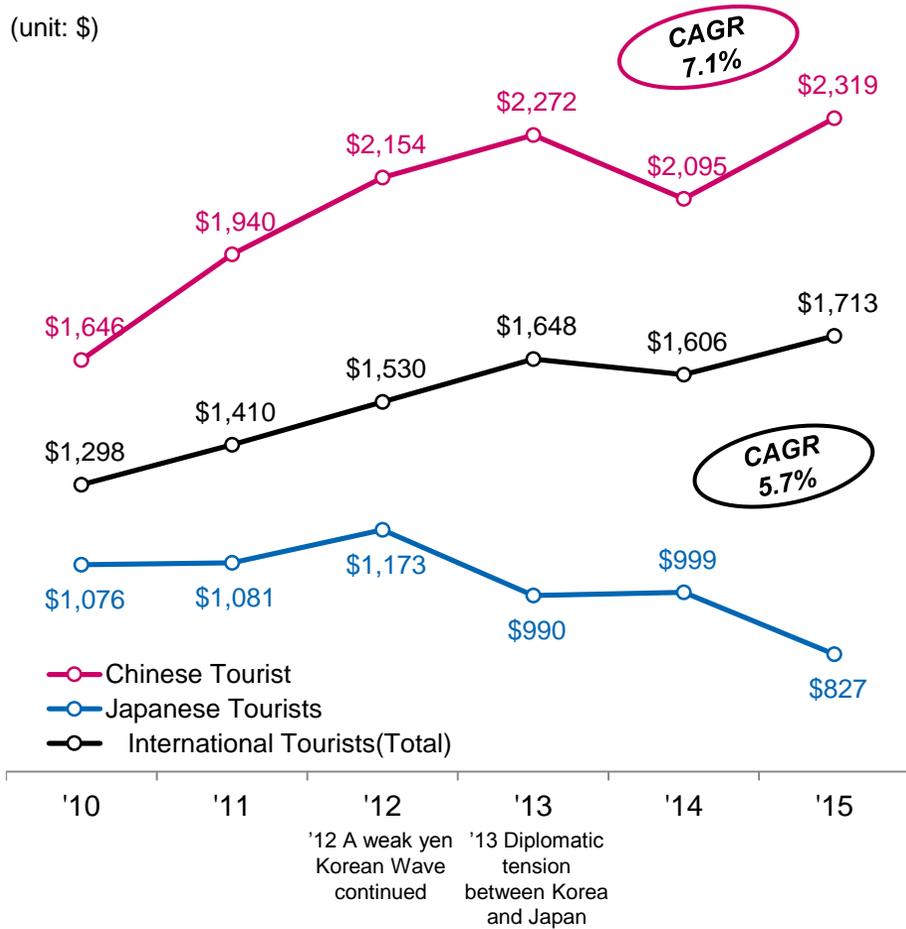


Source: NRI based on data from Tourism Knowledge and Information System

# The expenditure of Chinese tourists increased to \$2,300 in 2015, whereas approx. 77% of Japanese tourists spent less than \$1,000.

Average Expenditure of international tourists per person

(unit: \$)

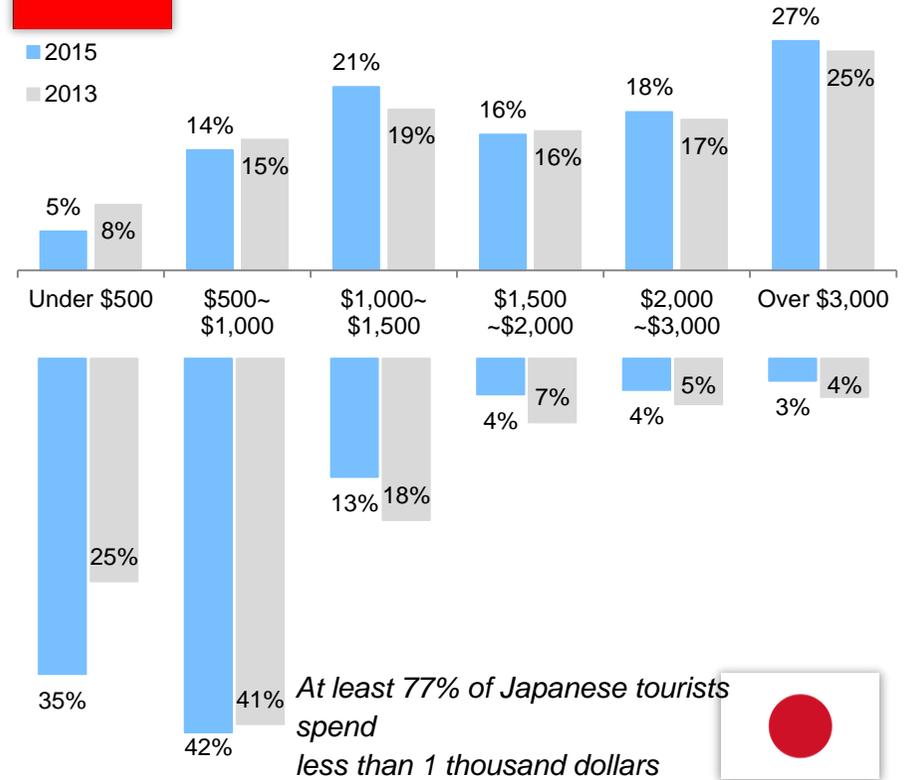


Average Expenditure of Chinese/Japanese tourists per person(2014)

(unit: %)



At least 27% of Chinese Tourists spend over 3 thousand dollars, and about 21% of them do 1,000~1,500 dollars

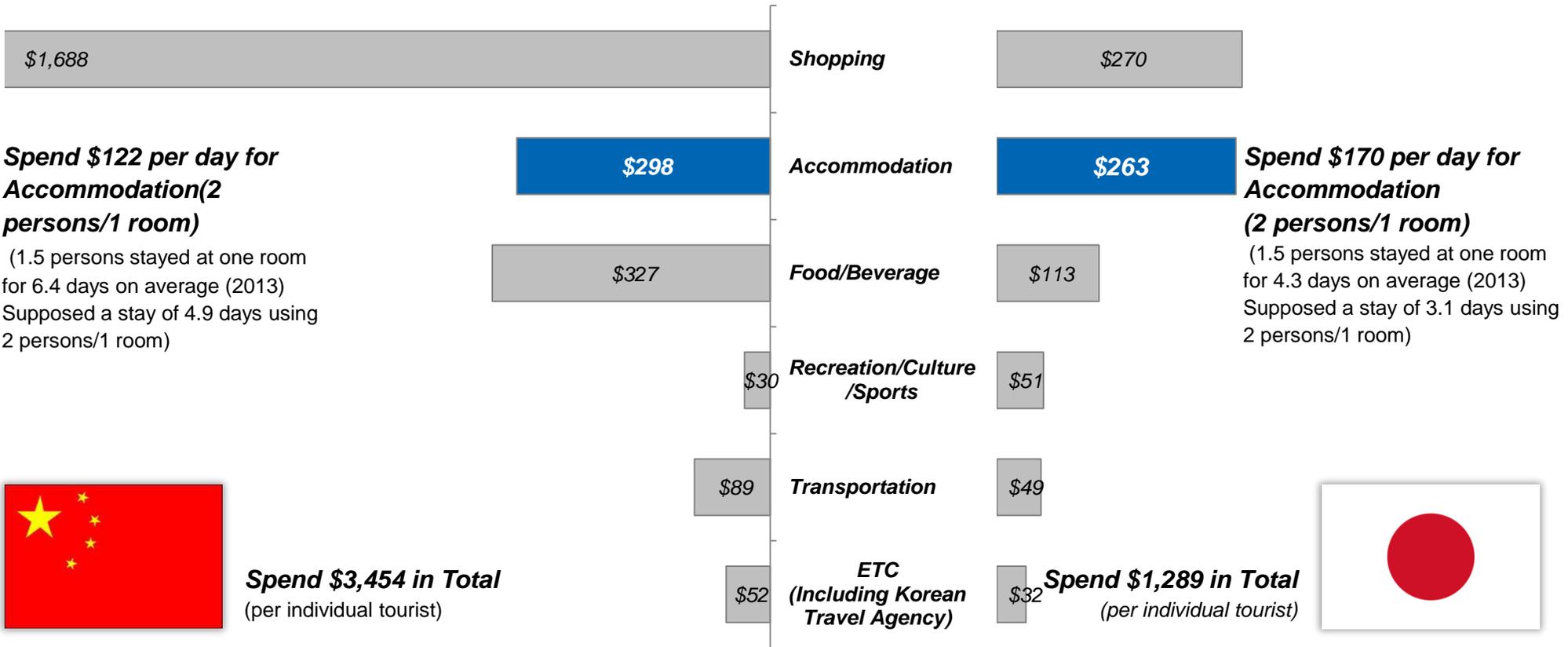


Source: NRI based on International Tourists Reports, Ministry of Culture, Sports, and Tourism

**Japanese tourists' accommodation expenses are around \$170(190,000 KRW)/double room/one day. This is higher than that of Chinese tourists(\$122).**

*Expenditure of Chinese and Japanese Tourists by purpose (2014)*

(unit: \$)

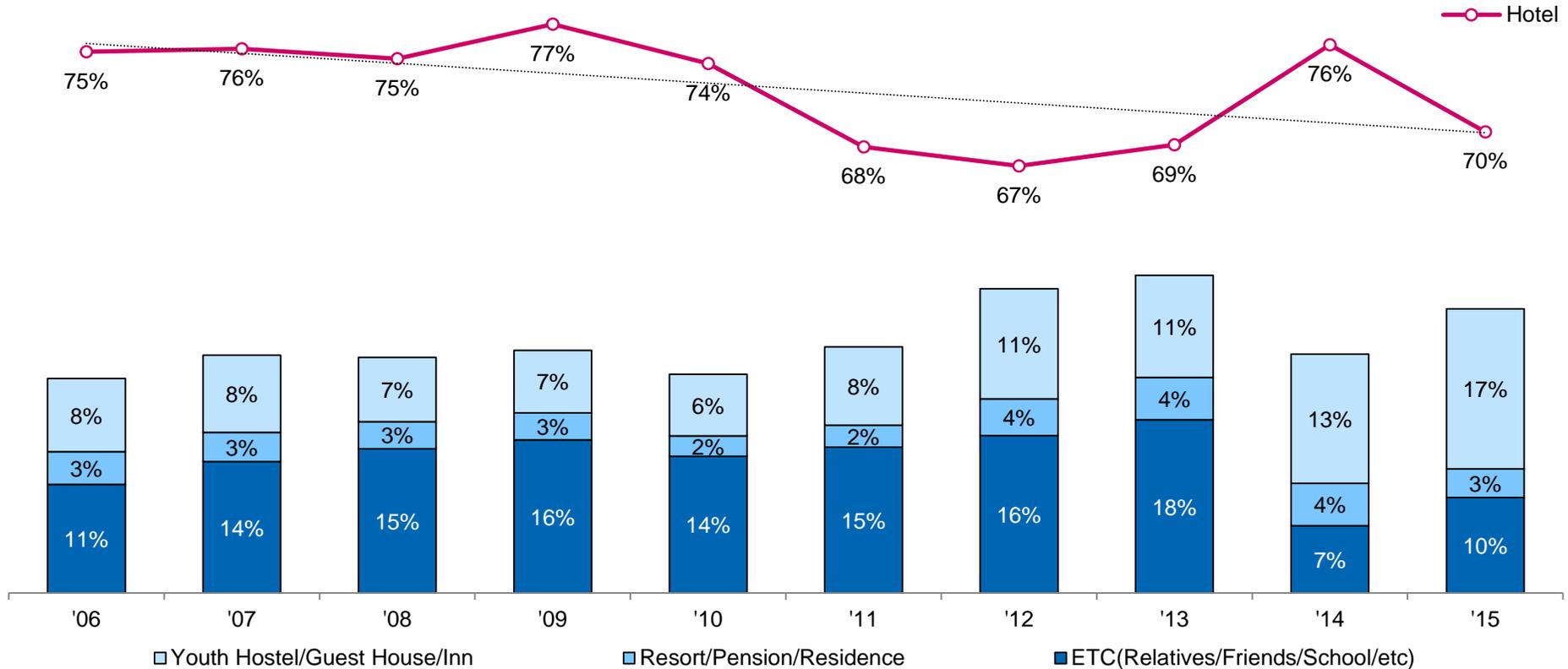


Note:\* For group tourists, as accommodation fee is included in "expenditure before leaving," accommodation expenses are estimated based on an individual tourist  
 Source: NRI based on International Tourists Reports, Ministry of Culture, Sports, and Tourism

# Although 70% of foreign tourists stayed at hotels in 2015, it shows decreasing trends.

Annual Use Rate of Accommodation by International Tourists

(unit: %)



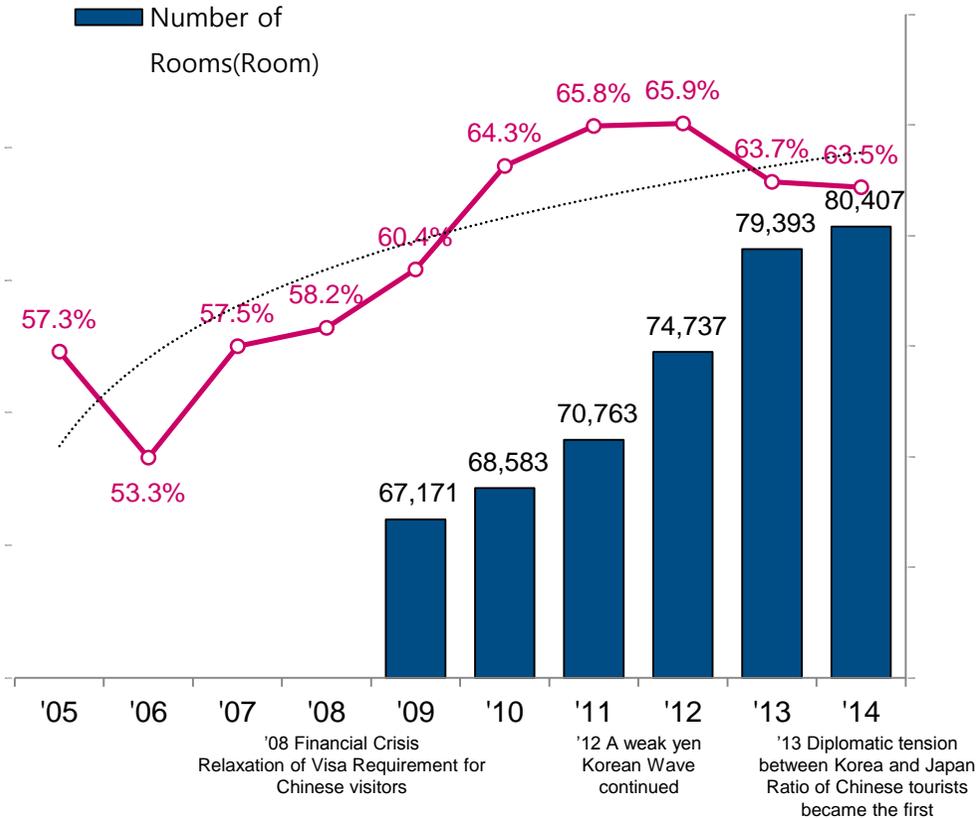
Note: As types of answers changed from single choice to a multiple one in 2011, the number of answers was re-adjusted to the ratio  
 Source: NRI based on International Tourists Reports, Ministry of Culture, Sports, and Tourism

# Although international tourists traveling to Korea has risen, an increase in room supply resulted in a decline of occupancy rate. In addition, the decrease of Japanese tourists to Korea led to a decline of the average room rate in 2014.

The number of hotel rooms and Occupancy (OCC)<sup>1)</sup> Nationwide

(Unit: 10 thousand people, %)

1) Occupancy Rate (OCC: Occupancy) = Number of Rooms/Available Rooms × 100

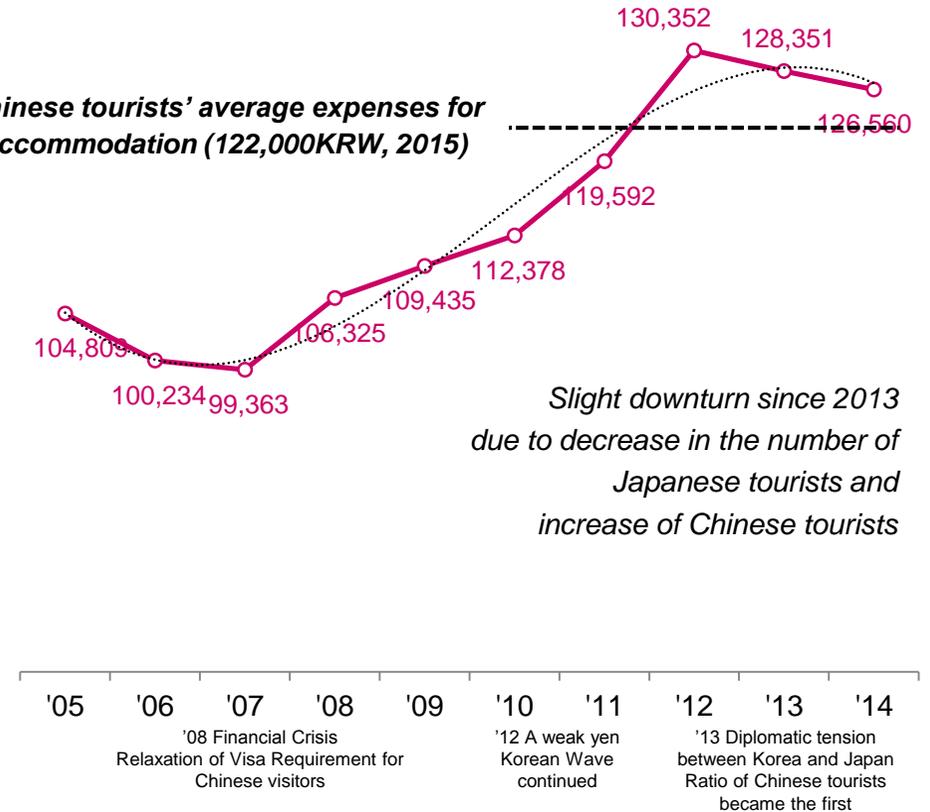


Nationwide Hotel Average Daily Rate (ADR)<sup>2)</sup>

(unit: KRW)

2) ADR (Average Daily Rate) = Room Revenue/Available Rooms

Chinese tourists' average expenses for accommodation (122,000KRW, 2015)



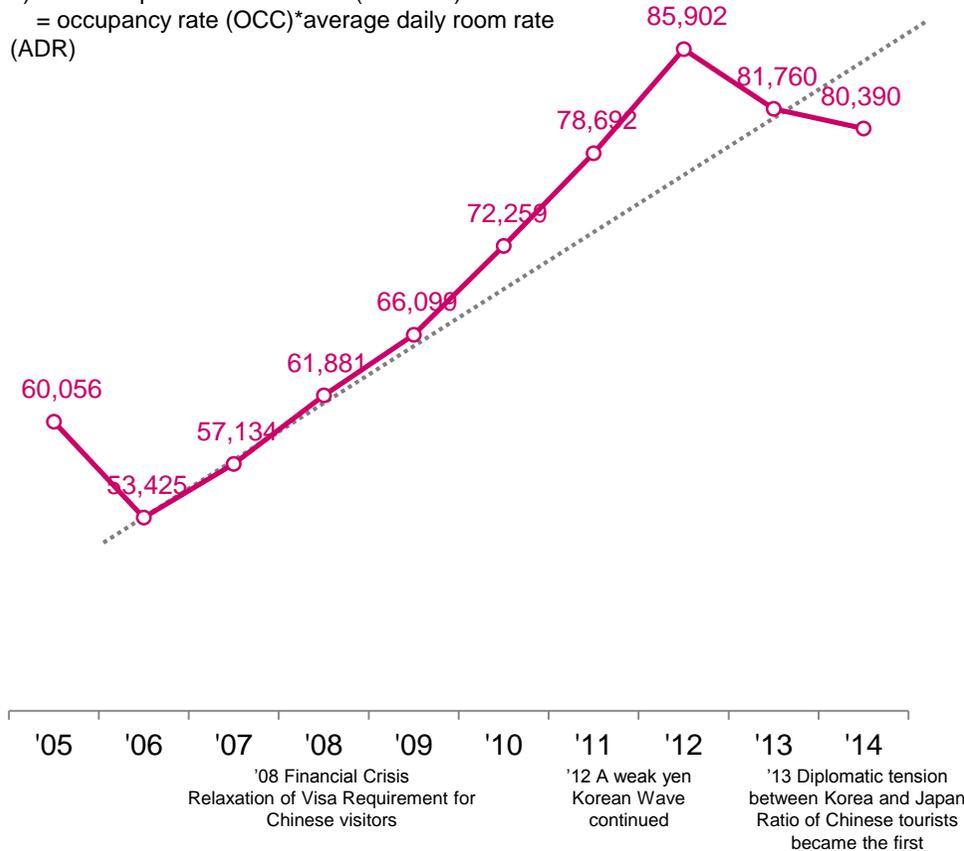
Source: NRI based on Tourism/Accommodation Industry Report, Tourism Knowledge and Information System, Korea Hotel Association

# Revenue per available room increased but turned downwards after 2013. Annual revenue per available room including profits from other facilities rapidly descended after 2013.

Nationwide Hotel Revenue per Available Room<sup>1)</sup>

(unit: KRW)

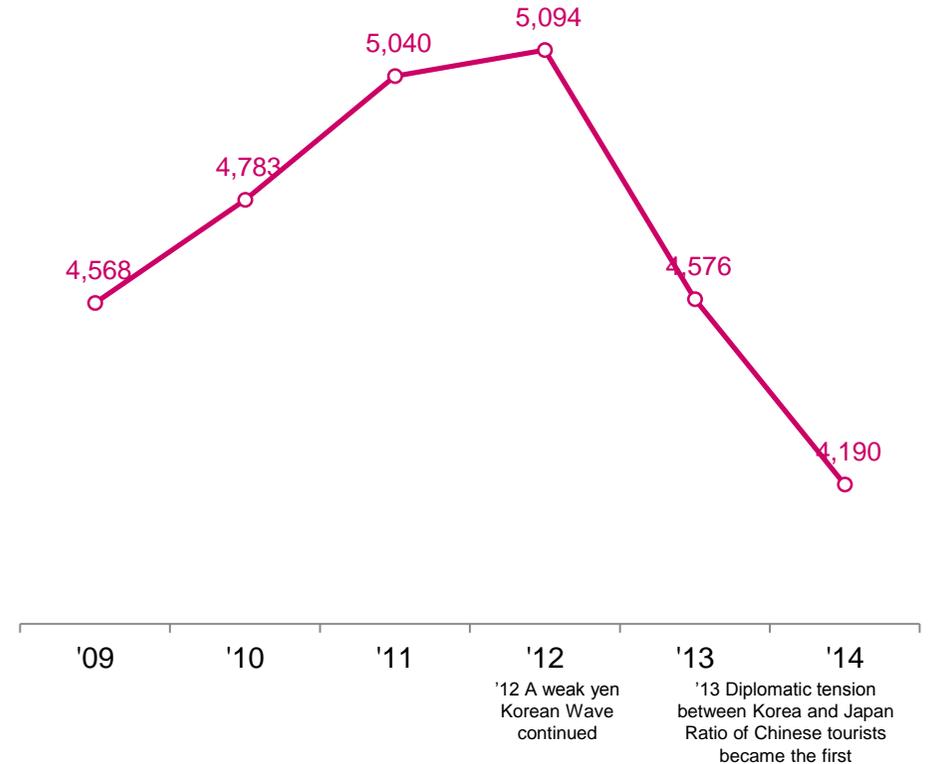
1) Revenue per Available Room (RevPAR)  
= occupancy rate (OCC)\*average daily room rate (ADR)



Annual hotel revenue per Available Room<sup>2)</sup>

(Unit: 10 thousand KRW)

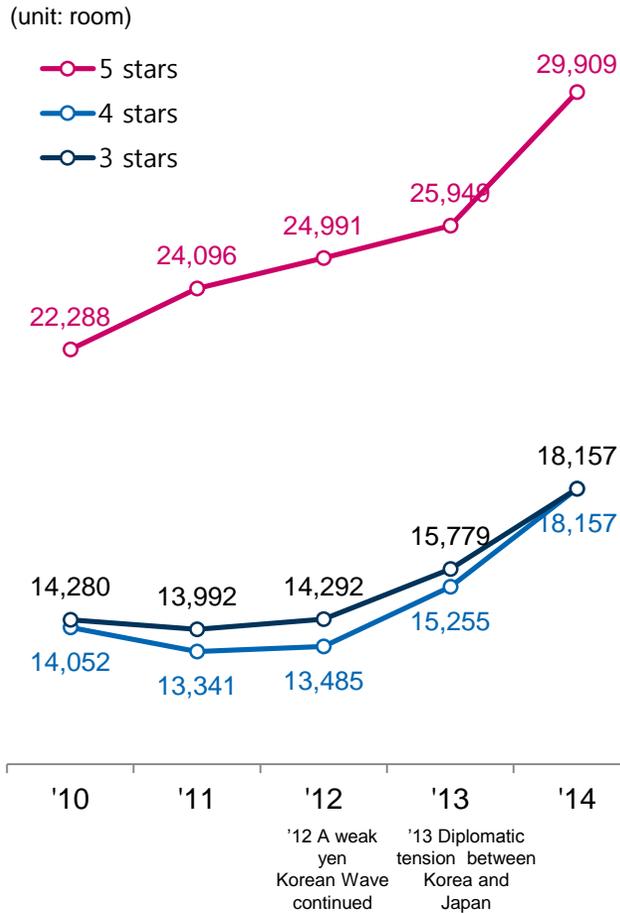
2) Annual Sales per available room = (room sales+additional facility sales)/available rooms



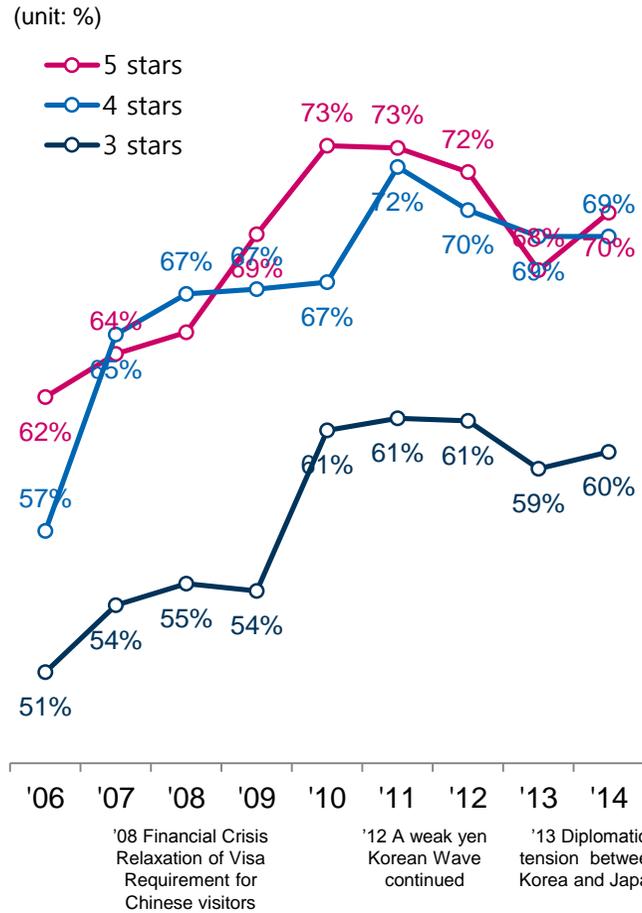
Source: NRI based on Tourism/Accommodation Industry Report, Tourism Knowledge and Information System, Korea Hotel Association

**While the number of rooms in luxury hotels has increased(especially 5 stars hotels), the average daily rate has decreased since 2013, and the occupancy rate has slowed down since 2012.**

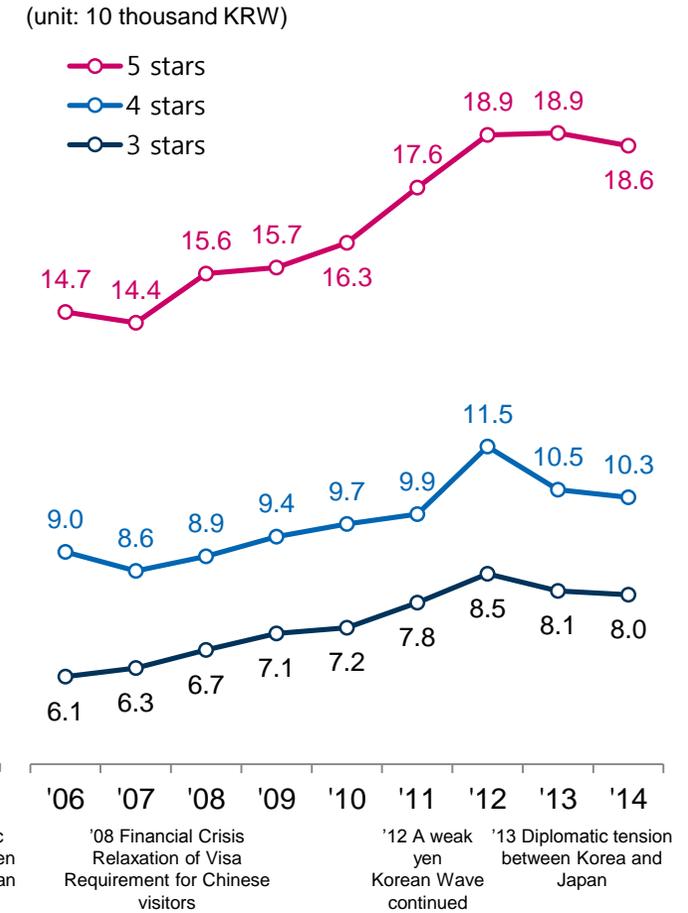
Number of Hotel Room by Ratings



Occupancy(OCC) by Ratings



Average Daily Rate(ADR) by Ratings

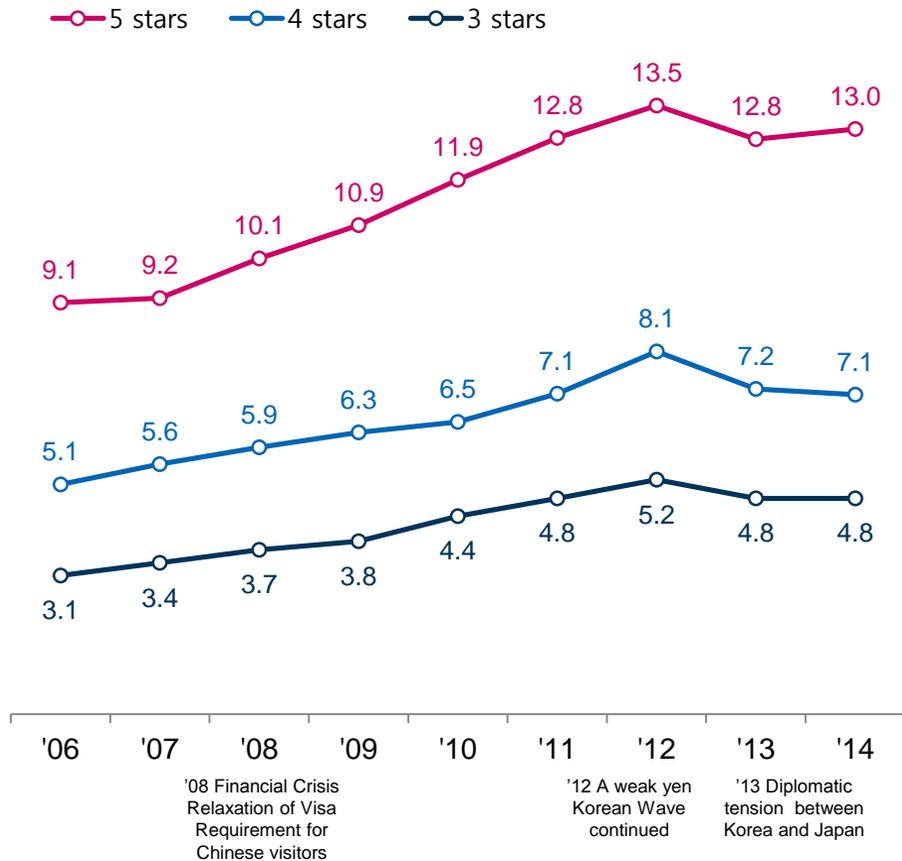


Source: NRI based on data from Tourism Knowledge and Information System

# Revenue per available room in every hotel rating slowed down after the peak in 2012. The annual revenue per available room in 5 star hotels has decreased at a rapid rate since 2013.

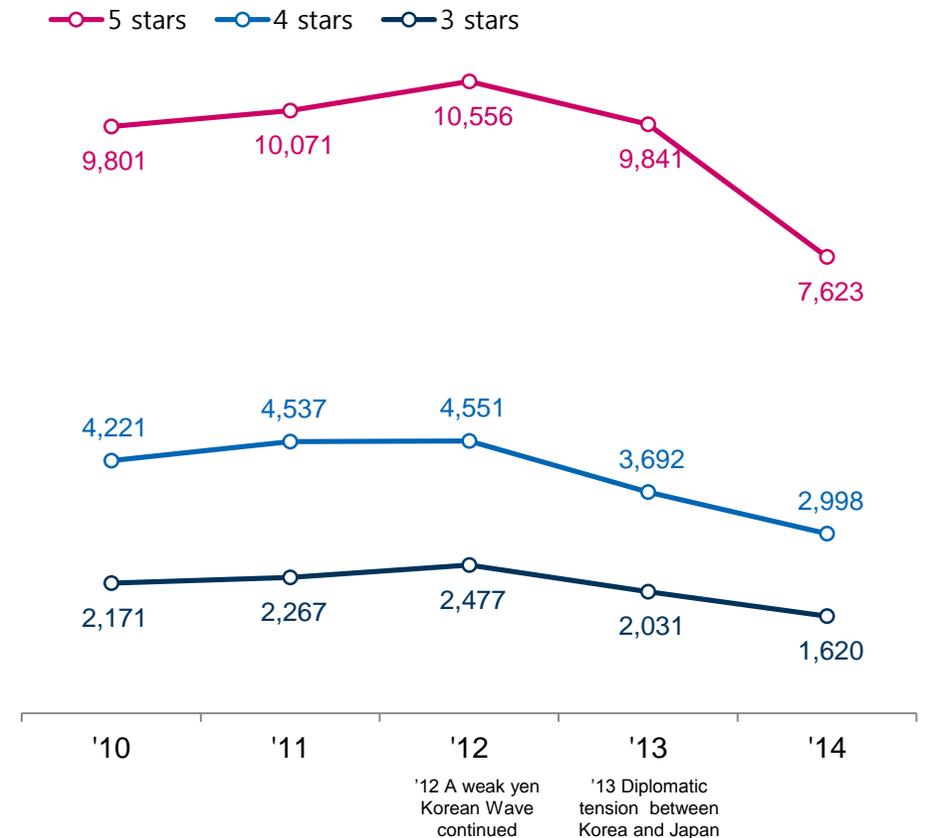
Revenue per Available Room (RevPAR) by Hotel Ratings

(unit: 10,000 KRW)



Annual hotel revenue per Available Room by Hotel Ratings

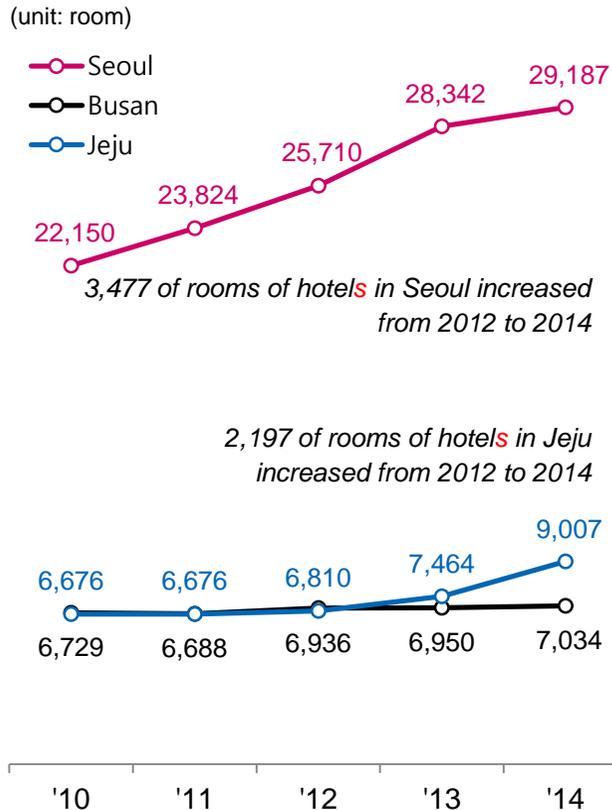
(unit: 10,000 KRW)



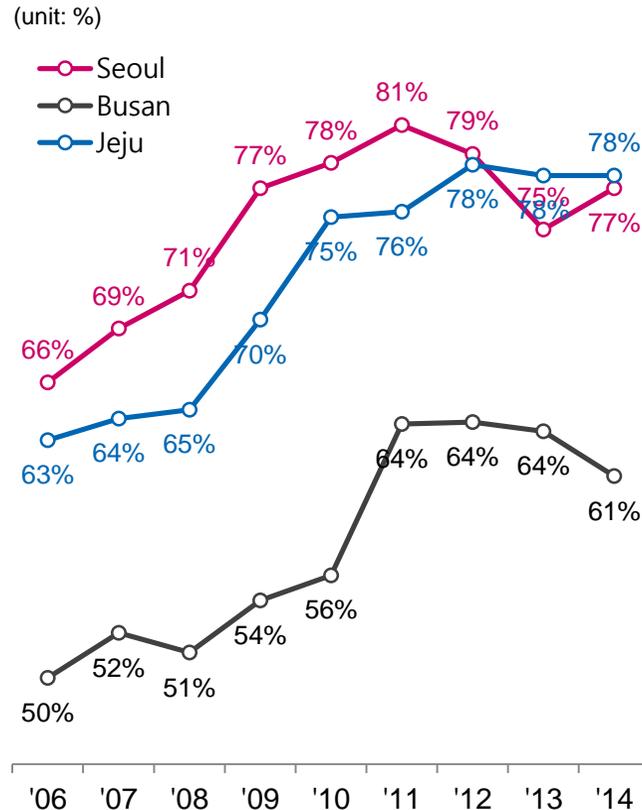
Source: NRI based on data from Tourism Knowledge and Information System

# An increase in the hotel supply resulted in a sluggish room occupancy rate in Seoul and Jeju. The average daily rate(ADR) of hotels in Seoul decreased, while the ADR of hotels in Jeju still showed an increase.

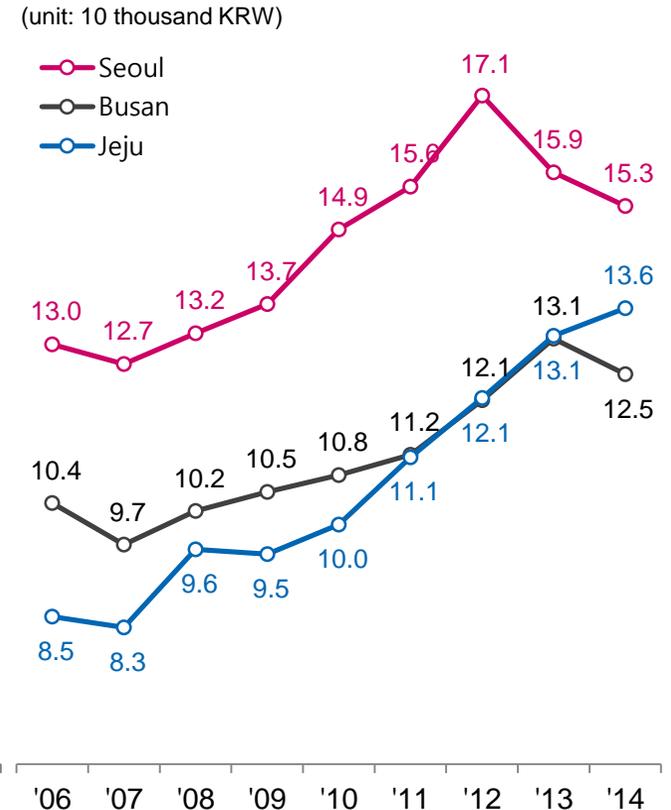
Number of Hotel Rooms by Region



Occupancy Rate (OCC) by Region



Average Daily Rate (ADR) by Region



'12A weak yen Korean Wave continued  
'13 Diplomatic tension between Korea and Japan

'08 Financial Crisis Relaxation of Visa Requirement for Chinese visitors

'12 A weak yen Korean Wave continued  
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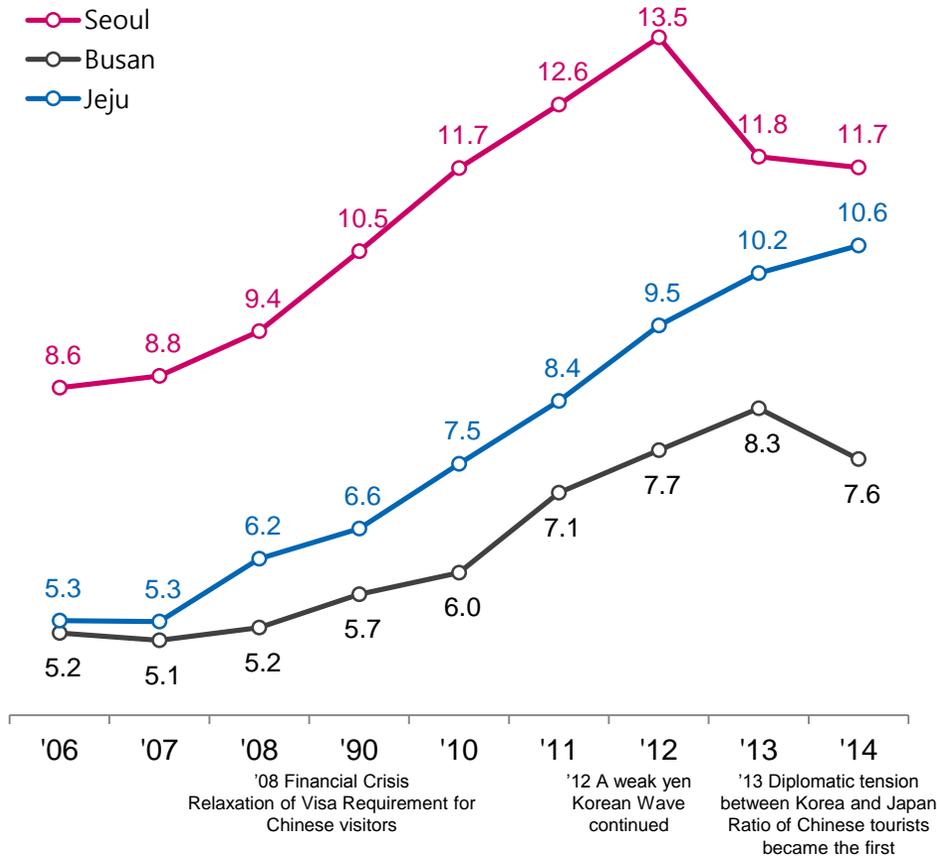
'12 A weak yen Korean Wave continued  
'13 Diplomatic tension between Korea and Japan

Source: NRI based on Tourism/Accommodation Industry Report, Tourism Knowledge and Information System, Korea Hotel Association

# Revenue per available room decreased in 2014 in Seoul and Busan except for Jeju. Annual revenue per available room in all regions showed a decrease after a peak in 2012. Some measures need to be taken to prepare for revenue reduction.

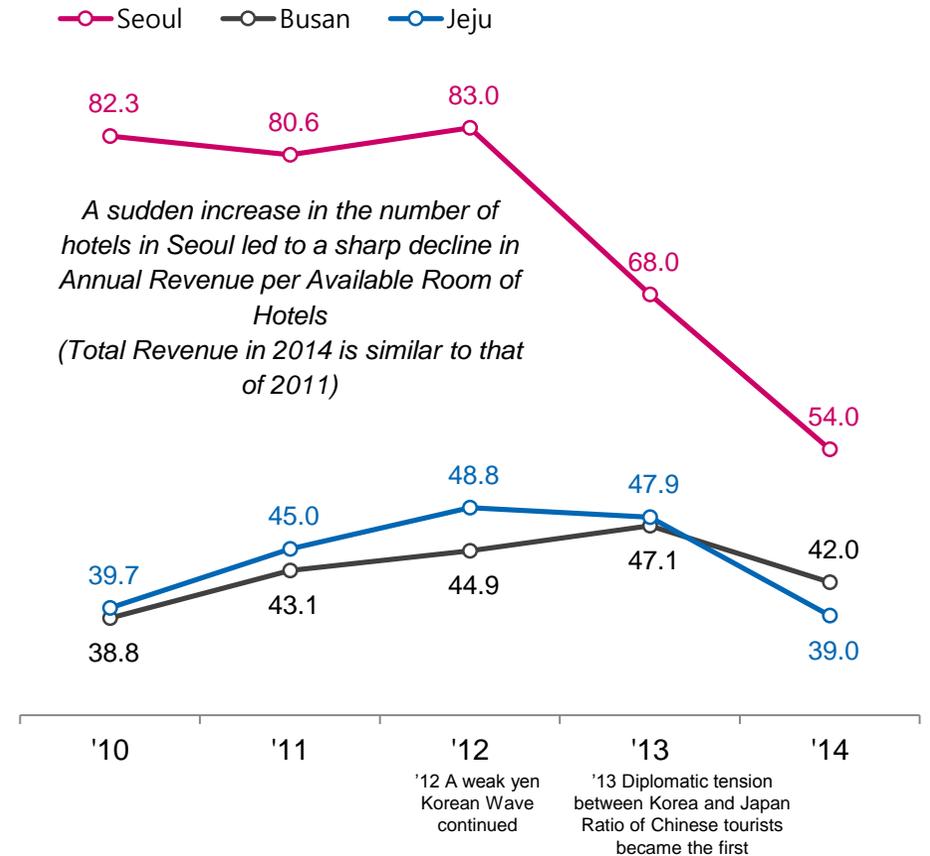
Hotel Revenue per Available Room by region

(unit: 10,000 KRW)



Annual hotel revenue per Available Room by region

(unit: 1mil KRW)



Source: NRI based on Tourism/Accommodation Industry Report, Tourism Knowledge and Information System, Korea Hotel Association

## Korea

Residential and Real Estate Investment are stable although economic stagnation.

1 Population and Macroeconomic

2 Office Market

3 House Market

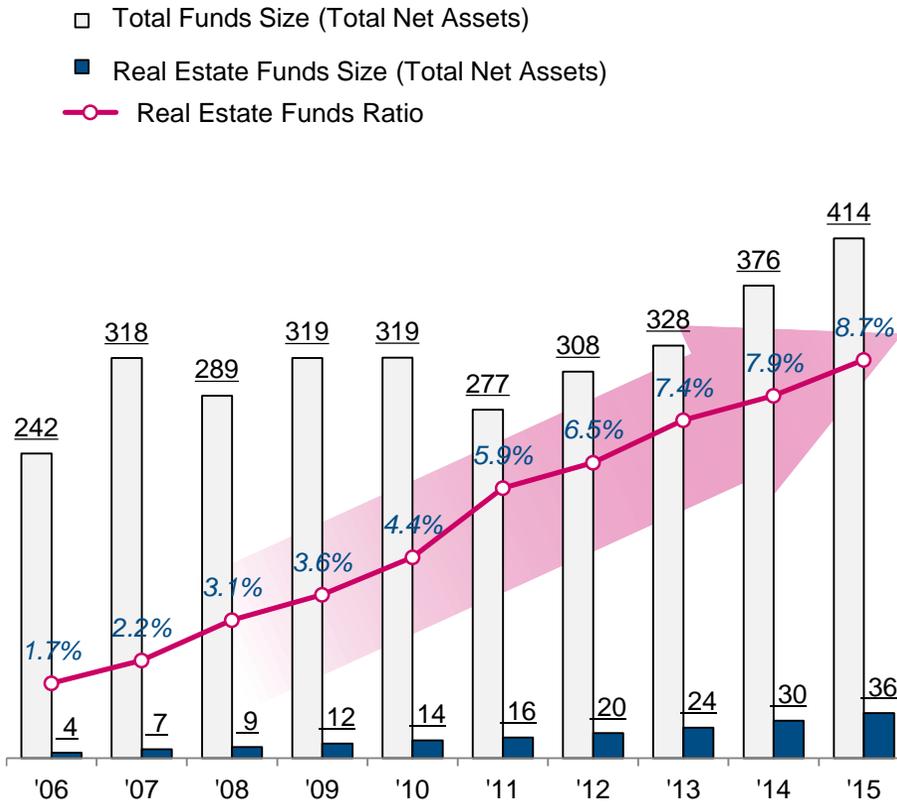
4 Hotel Market

5 Investment Market

# Real estate funds have consistently increased to about 40 trillion KRW. Foreign real estate funds also extend to about 40% of total real estate funds.

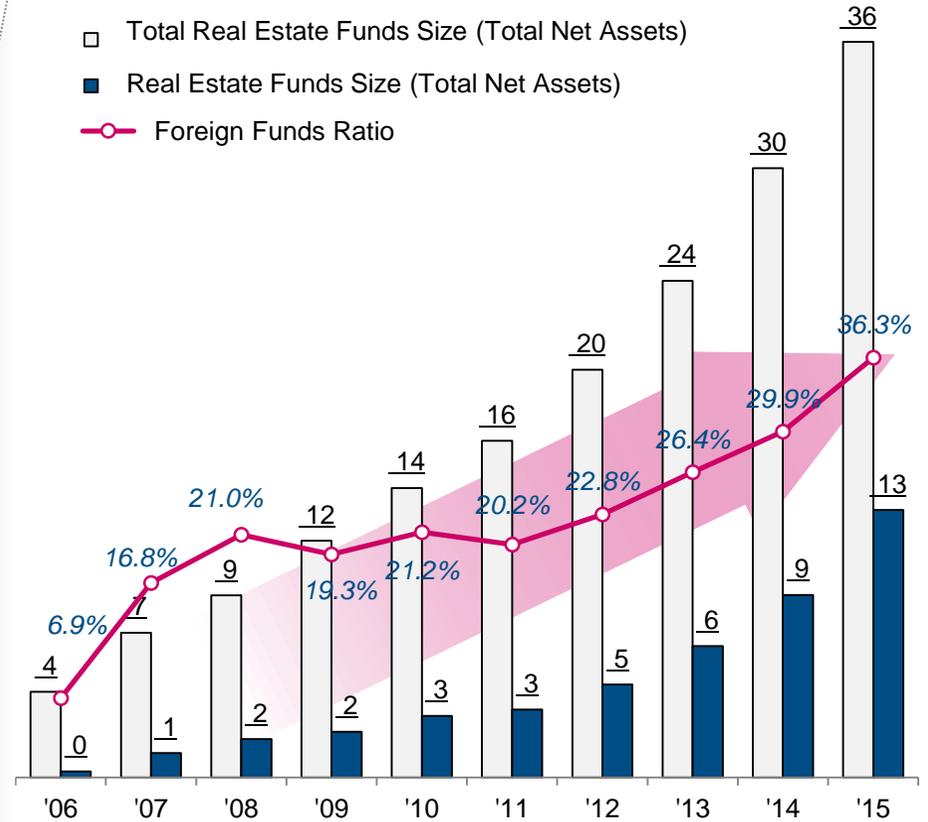
Size of all funds and real estate funds

(unit: trillion KRW)



Size of real estate funds and foreign funds

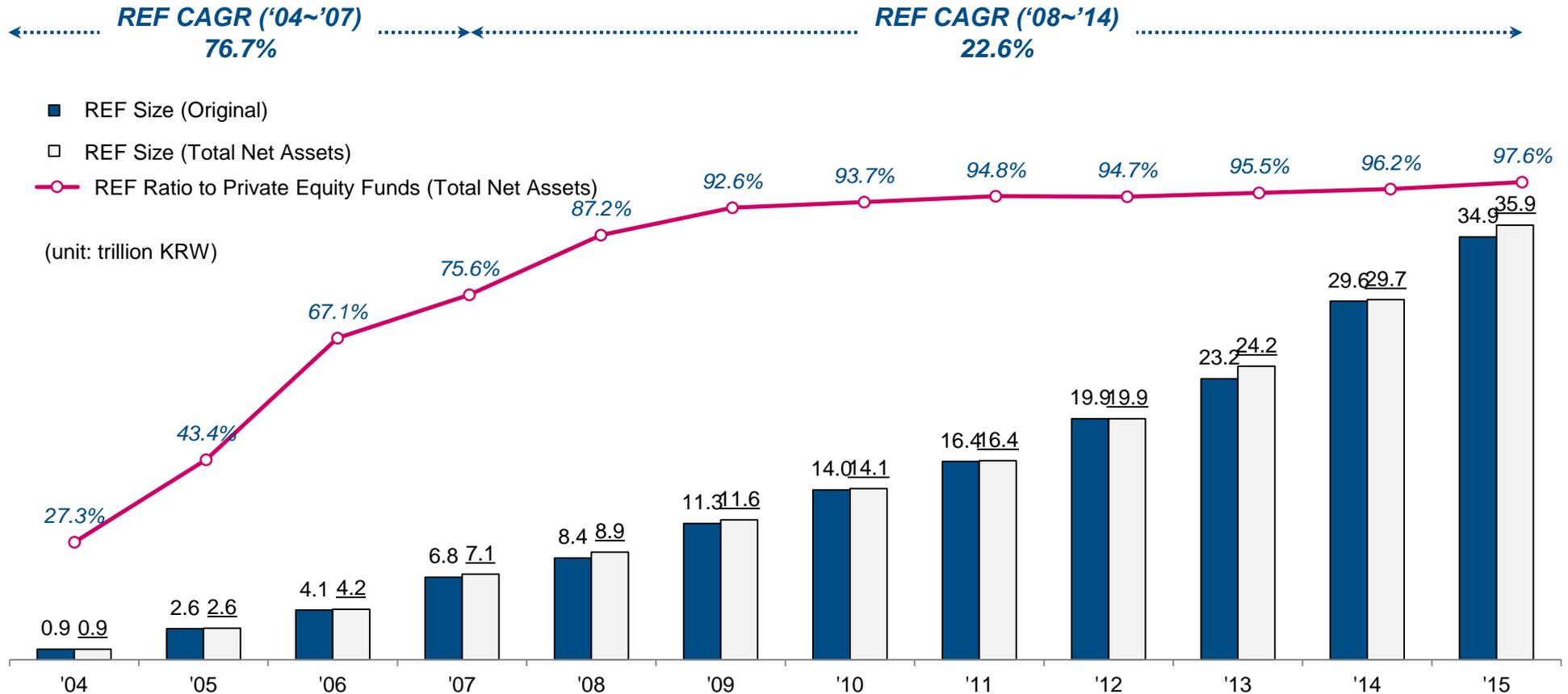
(unit: trillion KRW)



Source: NRI based on data from Korea Financial Investment Association

# Private equity funds account for about 98% of real estate funds.

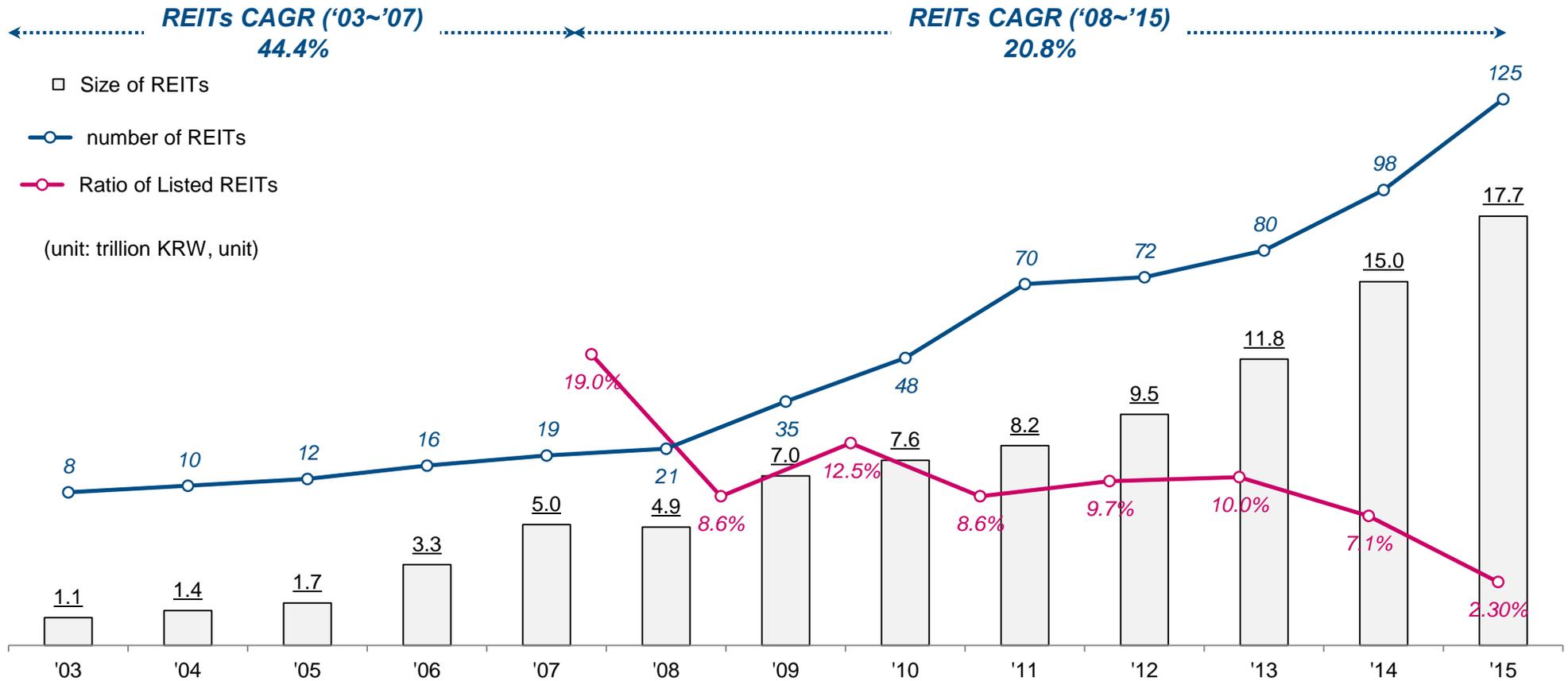
Annual Accumulative Investment in REF



Source: NRI based on data from Korea Financial Investment Association

# The size of REITs has increased to about 18 trillion KRW, but the portion of listed REITs still stays at around 2% of total REITs.

Annual Accumulative Investment in REITs

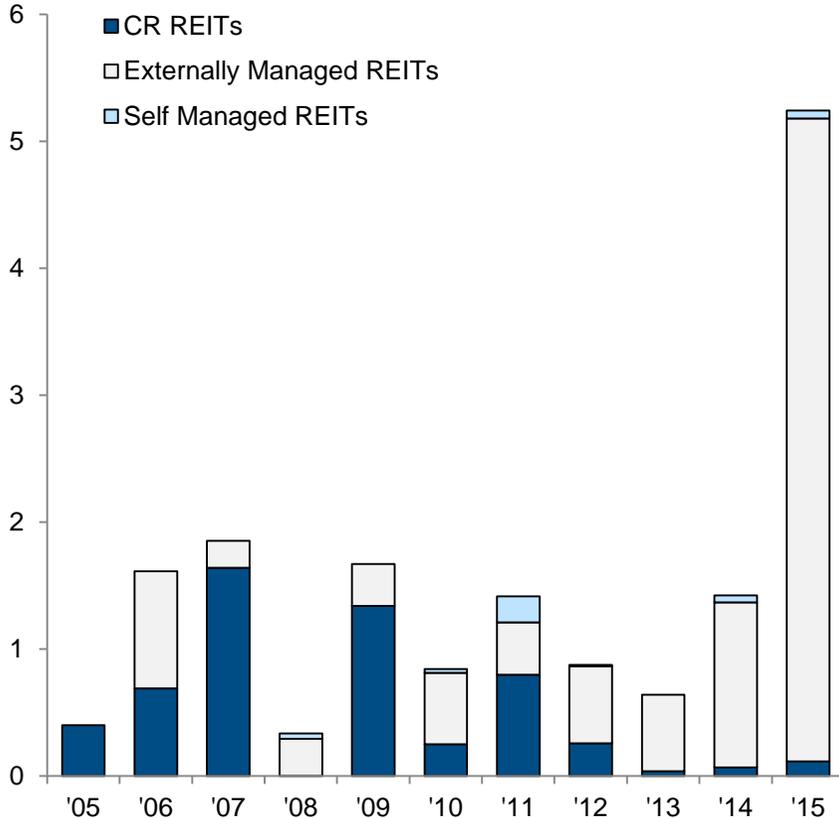


Source: NRI based on data from Korea Financial Investment Association, Korea Association of Real Estate Investment Trusts

# The majority of REITs in Korea are externally managed REITs.

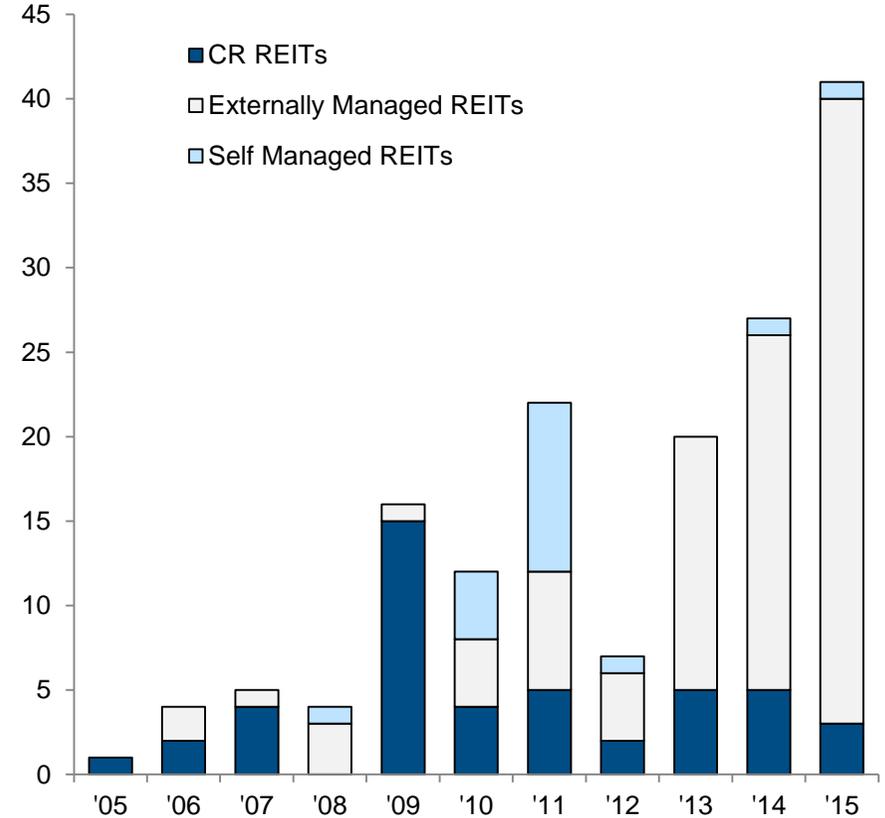
Size of Incorporated Assets by Types of REITs

(Unit: trillion KRW)



Number of REITs by Types of REITs (the number of the new authorization)

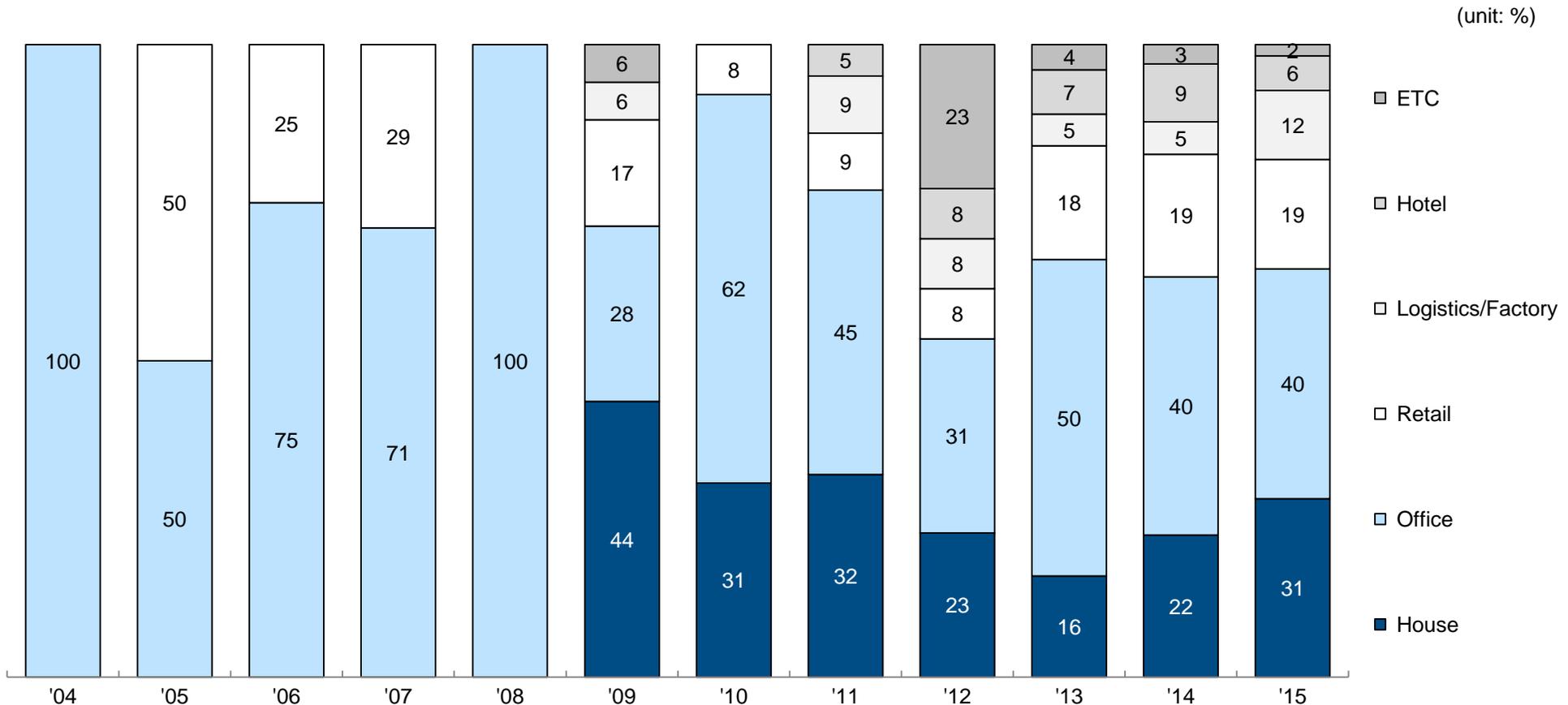
(Unit: number of REITs)



Source: NRI based on data from Korea Association of Real Estate Investment Trusts

# Office and house investments have been main areas for REITs. However, the range of investments become diversified into retail, hotels, and logistics.

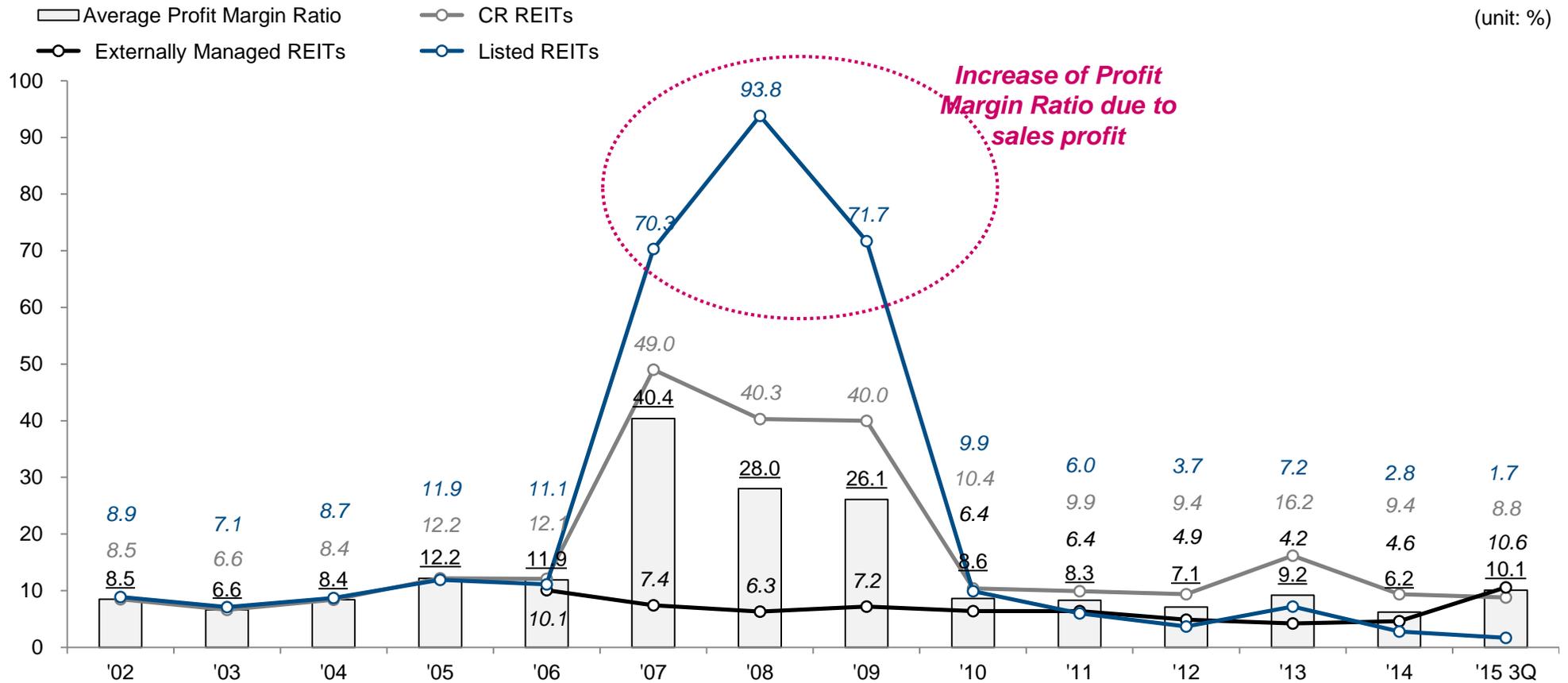
Annual Investment Portfolio of REITs (numbers of REITs)



Source: NRI based on Korea Financial Investment Association, Ministry of Land, Infrastructure and Transport, Korea Association of Real Estate Investment Trusts, KORAMCO

# The dividend yield ratio of REITs is 8% on average, showing a stable trend.

REITs dividend yield ratio



Source: NRI based on Korea Financial Investment Association, Ministry of Land, Infrastructure and Transport, Korea Association of Real Estate Investment Trusts, KORAMCO

<b>China</b>	Indeterminacy of market is rising cause of facing transition stage.
<b>Korea</b>	Residential and Real Estate Investment are stable although economic stagnation.
<b>Taiwan</b>	Integration within Greater China brings satisfactory in Hotel domain.
<b>Singapore</b>	Wider domains keep favorable, but residential and commerce show signs to weaken.
<b>India</b>	Economic growth improves broad domains in real estate.
<b>Russia</b>	Residential remains stable in spite of largely affected by devalued currency.

## Taiwan

Integration within Greater China brings satisfactory in Hotel domain.

1

Macro Fundamentals

2

Office Market

3

Residence Market

4

Hotel Market

## 1.Macro Fundamentals of Taiwan- (1) Overview

The effective control area of the Republic of China (Taiwan) is approximately 36,000 square kilometers, with a population of 235 million.

Matsu, Kinmen Region



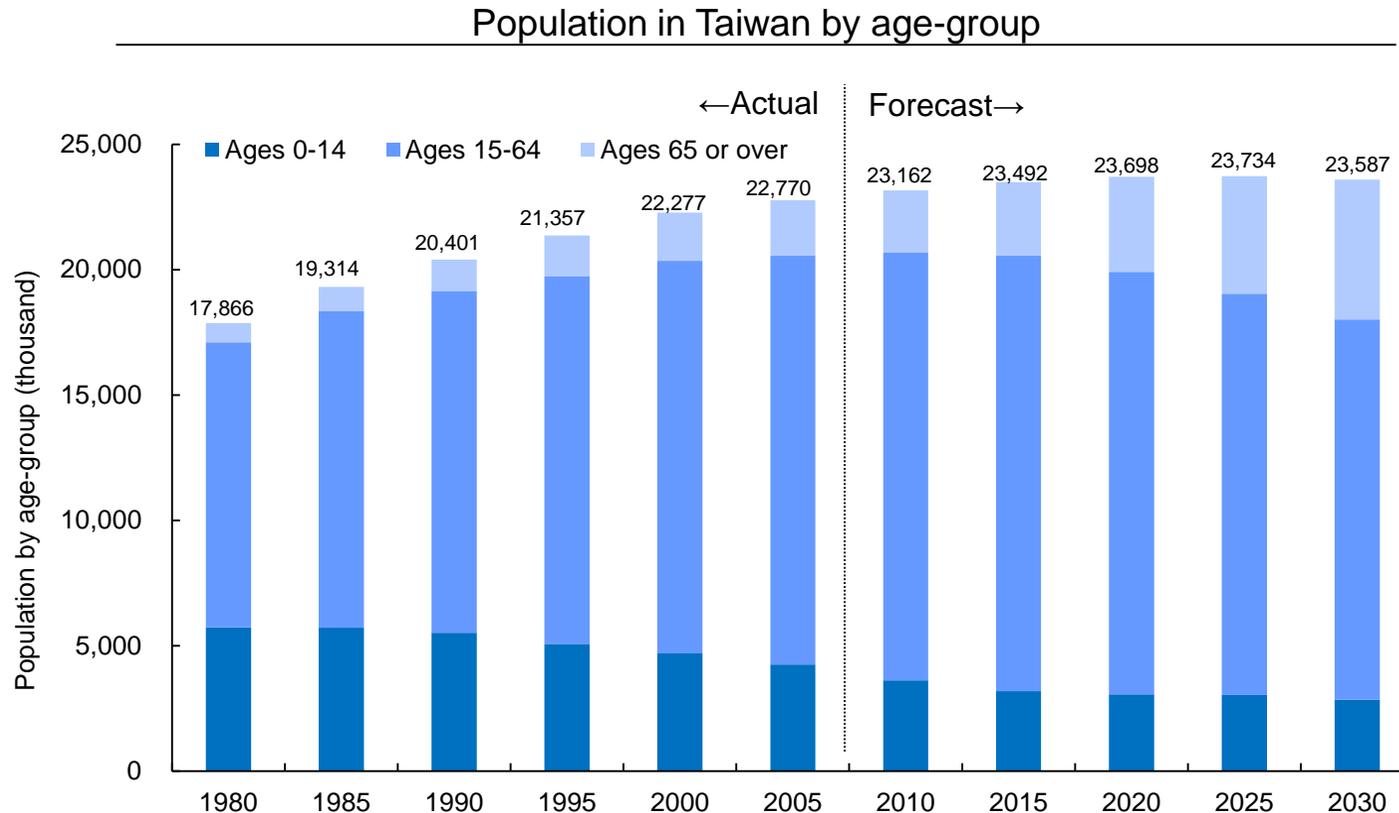
### Overview of Taiwan

<b>Country name</b>	Republic of China (Founded Oct. 10, 1912) (*The relocation of the Chinese Nationalist Party to Taiwan was in 1949)
<b>Era name</b>	Minguo (2016 A.D.= Minguo 105)
<b>Capital</b>	Taipei (Population: 2.70 million)
<b>Major cities</b>	Shinpei City (Population: 3.97 million), Taoyuang , Taichung, Tainan, Kaohsiung
<b>Area</b>	Approx. 36,200 km <sup>2</sup> (A bit little smaller than Kyushu, Japan)
<b>Population</b>	Approx. 25.10million (as of Jul. 2016)
<b>Ethnic Composition</b>	Han Race 98% , Aboriginal 2%
<b>Currency</b>	New Taiwan dollar (NTD) 1 NTD=Approx. 3.22 yen (As of Jul. 2016)
<b>Nominal GDP</b>	523,009 USD million (2015)
<b>Nominal GDP per capita</b>	22,294 USD (2015)
<b>No. of Japanese residents</b>	17,396 (as of Jul. 2016)
<b>Number of Japanese companies</b>	Japanese Chamber of Commerce and Industry in Taipei member firms: 499 (Jul. 2016) Japanese Club member firms: 297 (Dec. 2014)
<b>Number of travelers between Japan</b>	From Japan to Taiwan: 1.63 million (2015) From Taiwan to Japan: 3.80million (2015)

## 1. Macro Fundamentals of Taiwan- (2) Population

Population has been expected to reach its peak in around 2020 and after that, population in Taiwan may decrease gradually.

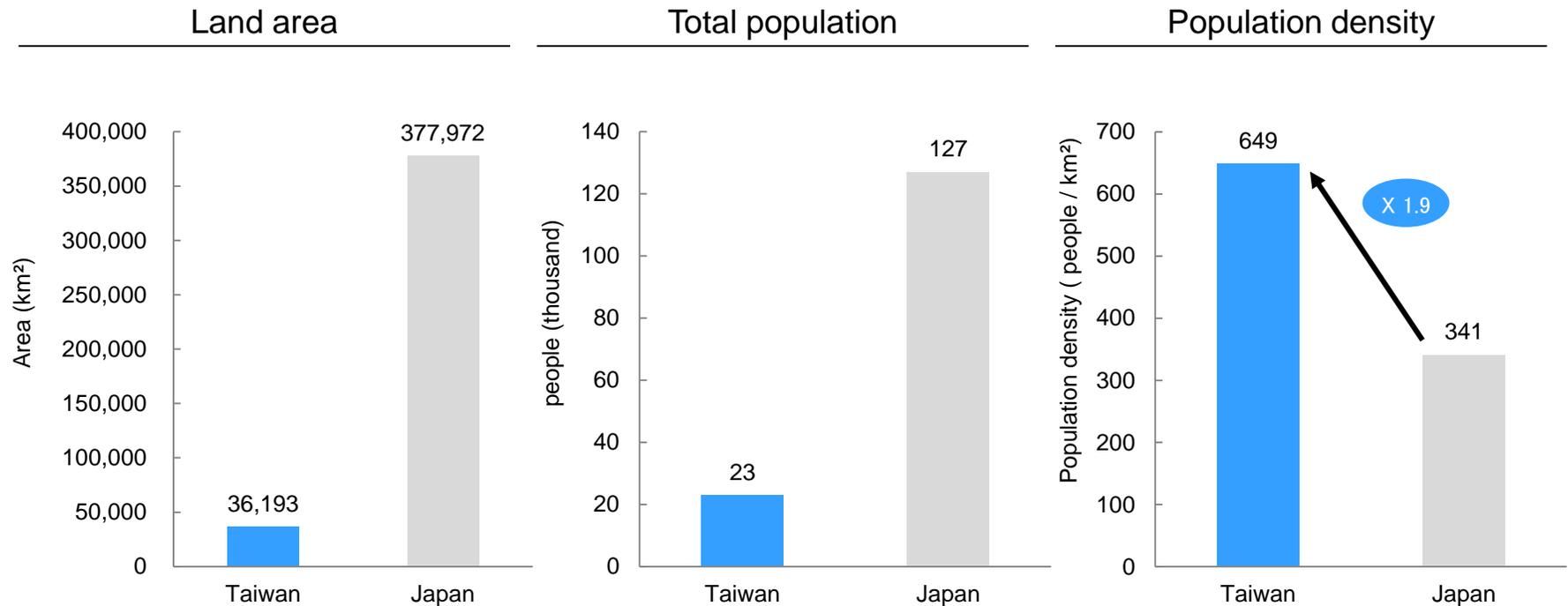
- There may not be an upward trend in population, because the number of productive workers' in the population is expected to stay steady or even decrease in the next 15 years.



## 1. Macro Fundamentals of Taiwan- (3) Population

The population density in Taiwan is approximately twice as that in Japan.

Comparison of Taiwan and Japan in population distribution



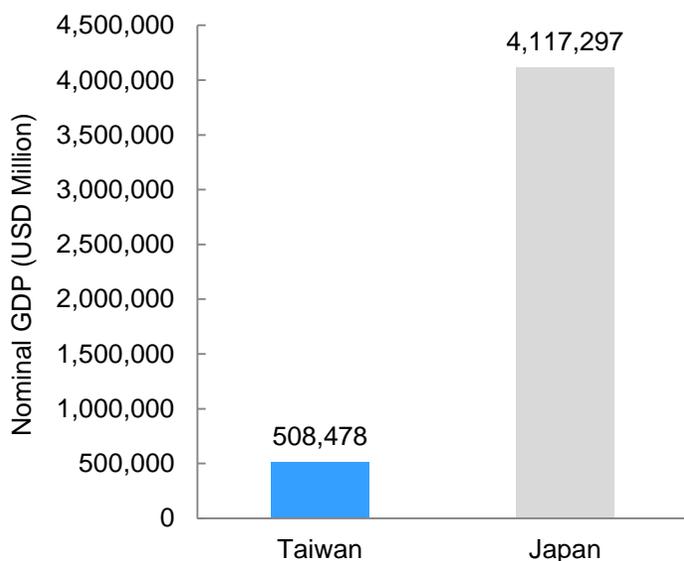
Source: NRI based on data from the Ministry of Interior of ROC and the Ministry of Internal Affairs and Communication of Japan

## 1. Macro Fundamentals of Taiwan- (3) Economic scale

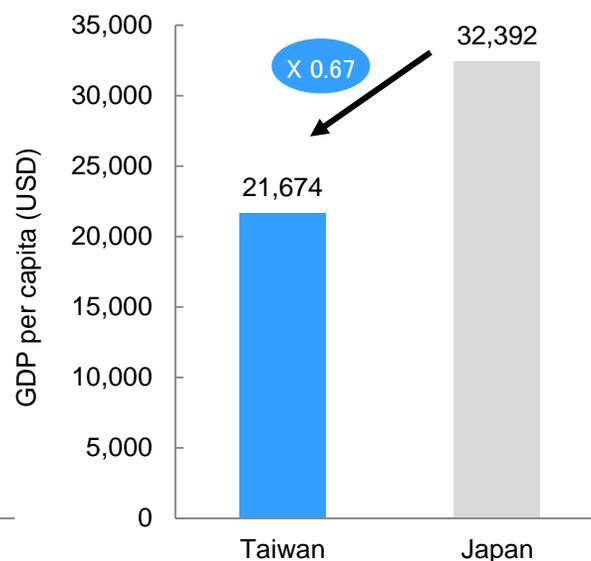
GDP per capita of Taiwan is about 70% of that of Japan, and the income level is about 90%.

Comparison of Taiwan and Japan in the scale of economy

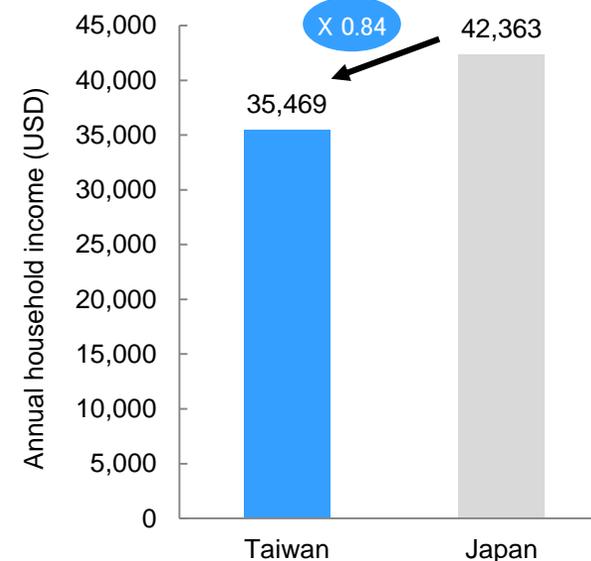
GDP (2015)



GDP Per capita (2015)



Household income (2015)



Exchange rate: 121.5687 yen = 1USD  
32.8192 NTD = 1USD  
(Date: Dec. 2015)

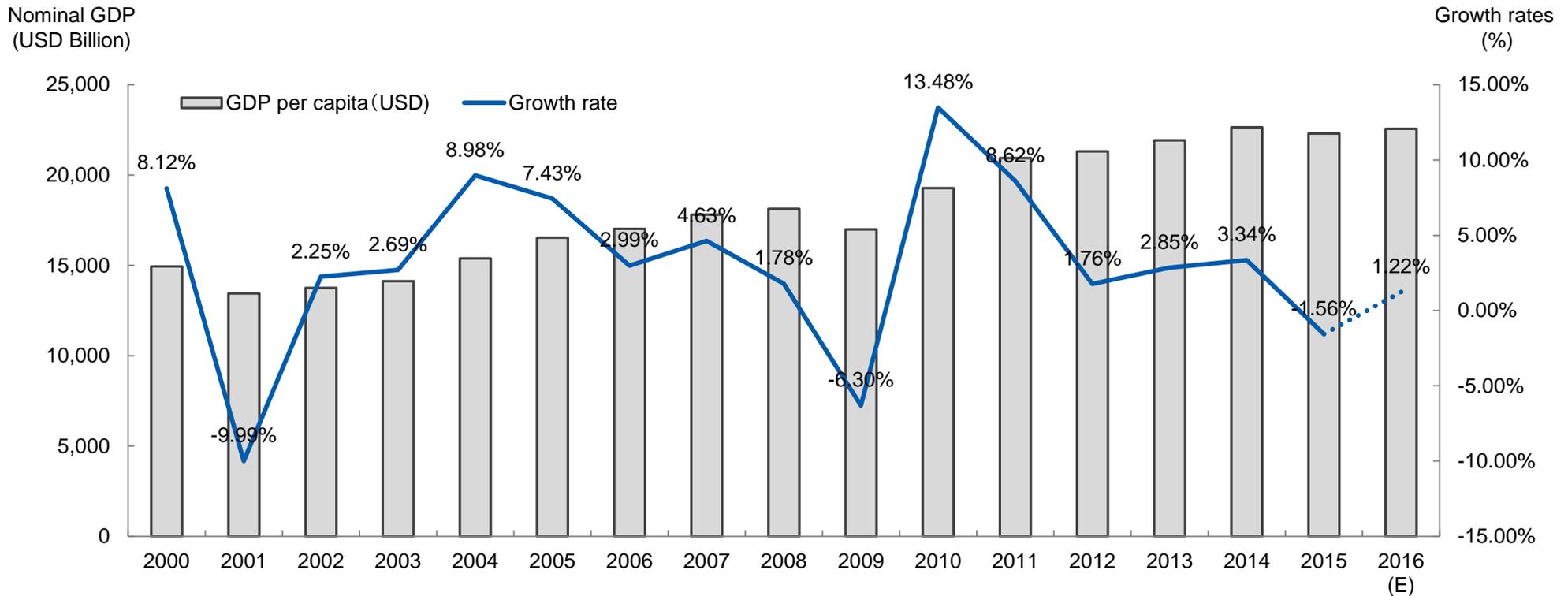
Source: NRI based on data from the DGBAS, Executive Yuan, R.O.C.(Taiwan), Statistics Bureau of the Ministry of Internal Affairs and Communications of Japan and Cabinet Office, Government of Japan

## 1. Macro Fundamentals of Taiwan (4) Economic growth rate

Taiwan's GDP growth rate slightly declined at a level of around 1.5%, while it is expected to increase 1.22%.

- Taiwan's economy showed negative growth during the IT bubble burst of 2001 and the financial crisis after the Lehman Shock of 2009, but it quickly returned to a stable growth trend.

### GDP and the growth rate in Taiwan



## 1. Macro Fundamentals of Taiwan- (5) History of relations between Taiwan and China

The cross-strait relationship has improved greatly since 2008. Following the inauguration of a new government (2016), the cross-strait relationship will remain steady.

### History of Cross-strait relationship under the Ma Ying-jeou administration

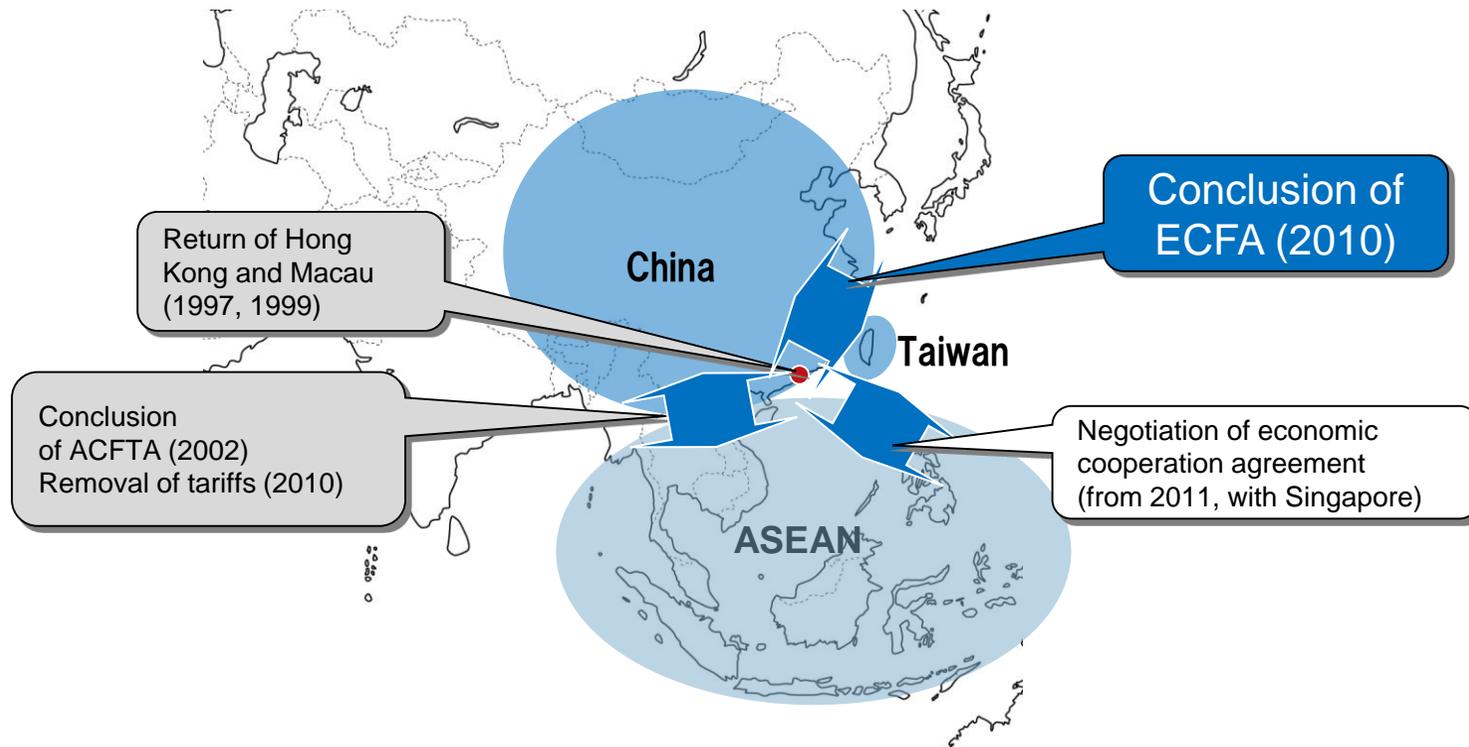
May 2008	Ma Ying-jeou of the Nationalist Party becomes the 12 <sup>th</sup> President of Taiwan.
Jul.	Chinese tourists to Taiwan was deregulated. (Group tour)
Dec.	The Three Links (Liberalization in commerce, transportation, and postal service) is implemented.
Dec.	The Cross-Strait Conference on the Cooperation and Exchange of the Chinese Medicine Industry, which is the project representing the cross-strait industrial bridge, was held in Taipei.
Apr. 2009	The third summit meeting of cross-strait contact points was held. A memorandum on cross-strait financial cooperation (concerning banks, securities and insurance) was signed and chartered flights were planned to be increased and become scheduled.
Jul.	Chinese investment into Taiwan was deregulated. (63 kinds in manufacturing, 24 in service and 11 in public works were released to be invested in by the Chinese).
Nov.	Cross-Strait financial MOU was signed. (Put into effect in January 2010)
Feb. 2010	The Ministry of Economic Affairs of Taiwan deregulated China's investment in LCD and semiconductor wafers in Taiwan.
Jan. 2011	Started waiving import tariffs (so-called Early Harvest list).
Nov.	Both sides agreed on industry cooperation in the following segments (LED, Municipal Wireless, Cold Chain Logistics, TFT-LCD, EV).
Aug. 2012	The customs authorities of Taiwan and China signed a Cross-Strait Customs Cooperation Agreement regarding customs service, a smuggling crackdown and tariff reduction.
Aug.	Both sides reached a consensus to promote a mechanism of transparent information, loosening investment limitations to promote prosperity.
Jun. 2013	The Cross-Strait Agreement in Trade in Services based on the WTO framework is signed. It proposes opening up over 100 services sectors in phases.
Mar 2014	Taiwan's ruling Kuomintang party attempted a unilateral move in the Legislative Yuan to force the Cross-Strait Service Trade Agreement to the legislative floor without giving it a clause-by-clause review. Such an action caused an Anti-Cross-Strait Service Trade Agreement demonstration on the next day.
April	Legislative Speaker Wang Jin-pyng visited the occupied parliament chamber and promised to postpone review of the trade pact until legislation monitoring all cross-strait agreements has been passed
May 2016	Since May 20, 2016, Tsai Ing-wen has begun her presidency and has claimed that the relationship between Taiwan and China in the next four years will remain steady.

## 1. Macro Fundamentals of Taiwan-(5) History of relations between Taiwan and China

There has been a trade agreement, ECFA, since 2010. Thus, the interaction between these areas has increased significantly in terms of business activities.

- The Chinese economic area centering in China has been accelerating its unification as Greater China, with the return of Hong Kong in 1997 and Macau in 1999, the conclusion of the ACFTA with ASEAN in 2002, and the ECFA with Taiwan in 2010.
- ECFA between Taiwan and China gradually reduced tariffs on 539 items in China and 267 items in Taiwan, and investment in the service industry deregulated. Therefore, an increase of business investment between Taiwan and China is expected.

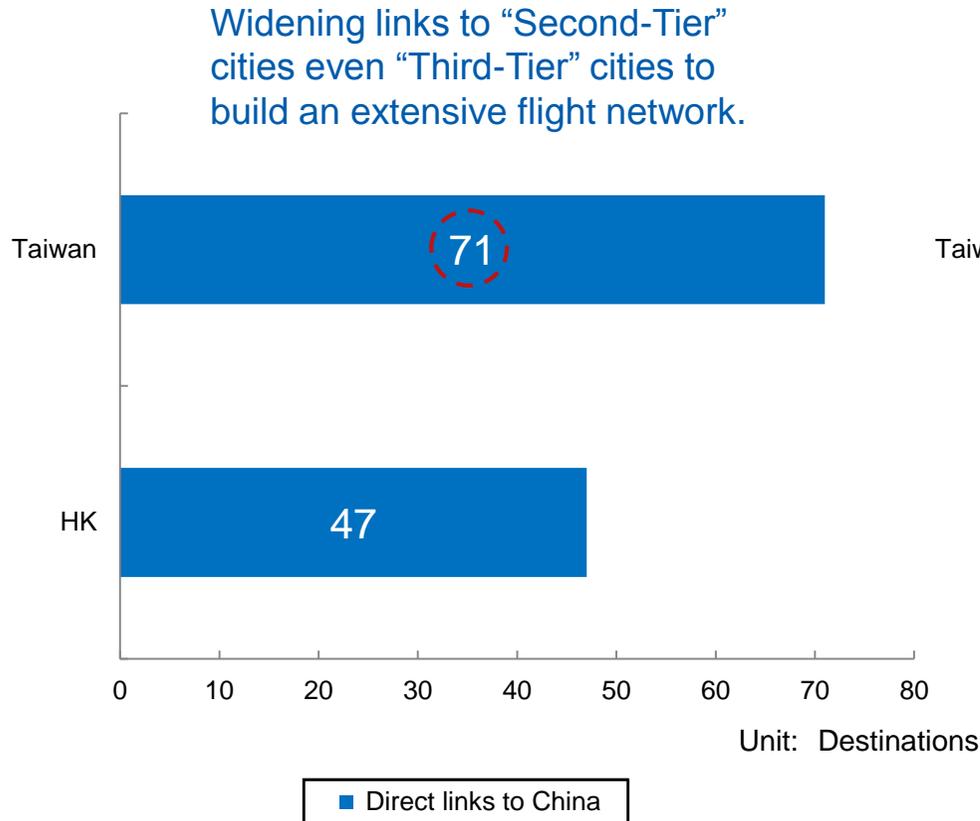
### Unification of the Chinese economic area



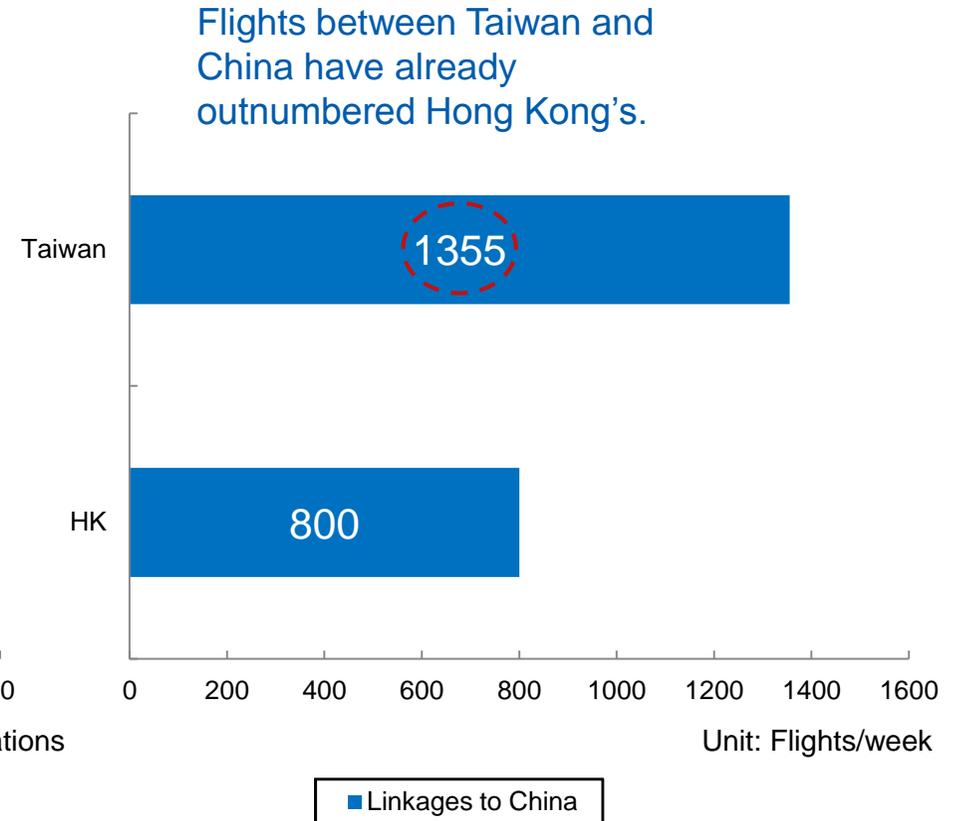
## 1. Macro Fundamentals of Taiwan (5) History of relations between Taiwan and China

Cross-strait physical linkage also has become closer. Taiwan has become one of the countries that has the densest air direct links with China in Asia.

No. of Destinations in China in 2015



No. of flights to China in 2015



Source: NRI based on data from the Civil Aeronautics Administration of the MOTC, R.O.C.(Taiwan), and Airport Authority Hong Kong

## Taiwan

Integration within Greater China brings satisfactory in Hotel domain.

1

Macro Fundamentals

2

Office Market

3

Residence Market

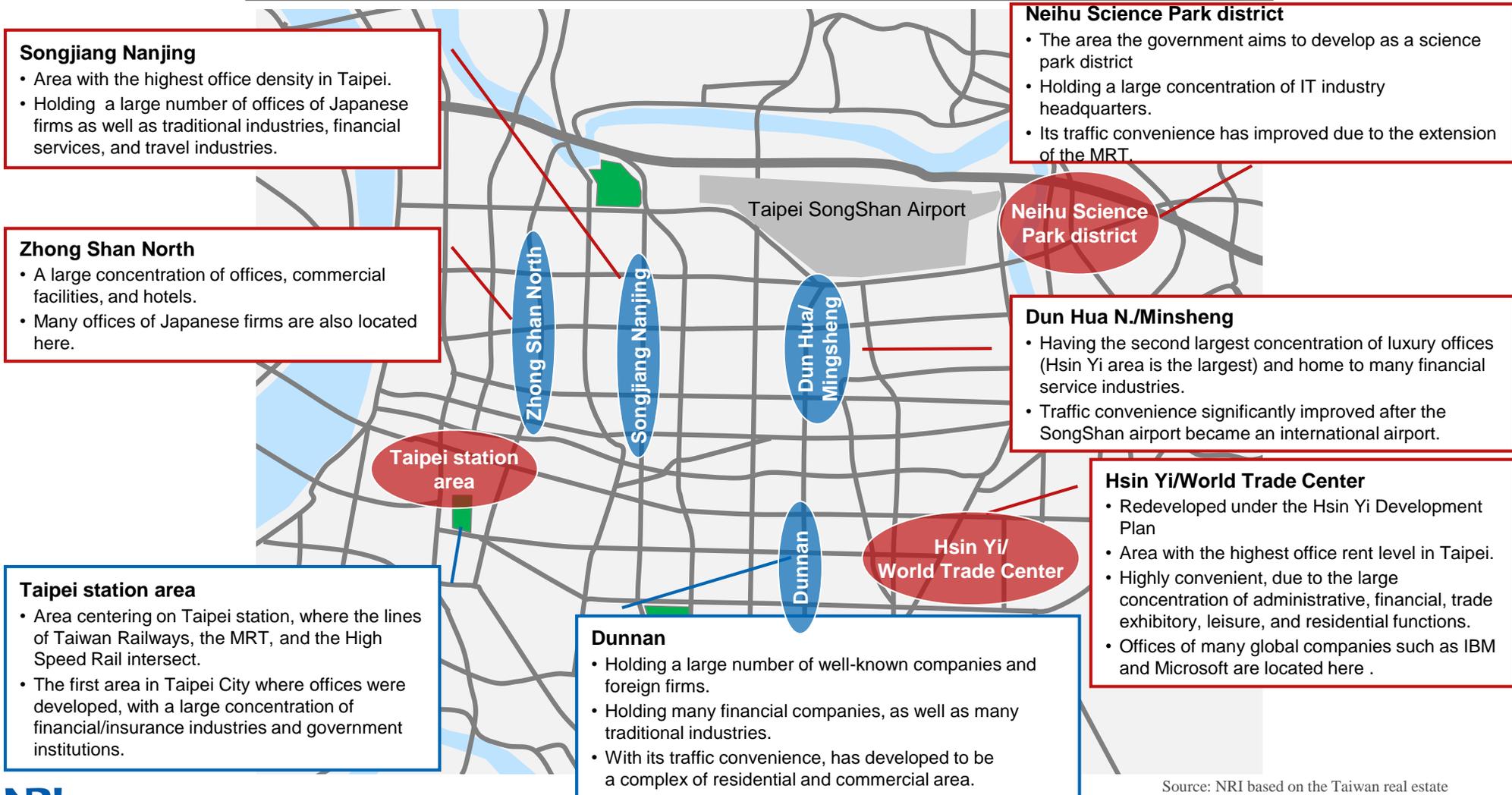
4

Hotel Market

## Office Market (1) Main area

The following 7 areas compose major office districts in Taipei City.

Major office areas in Taipei City



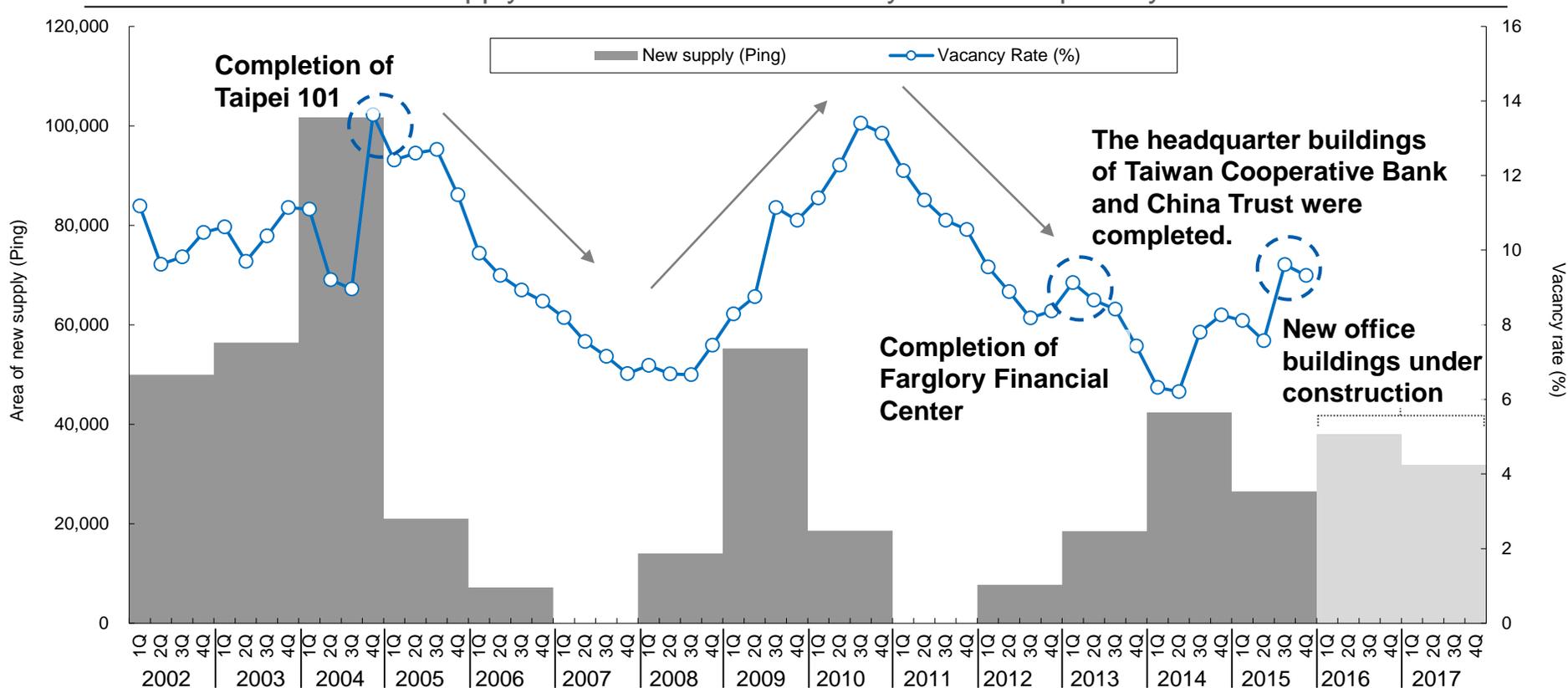
Source: NRI based on the Taiwan real estate yearbook and other materials

## Office Market (2) Supply and demand trends

### Office vacancy rate in Taipei rose to more than 9% in 2015.

- Overall, the vacancy rates in Taipei were declining and average at about 9%.
- Headquarter buildings of some Taiwanese banks were completed in Q3,Q4 2014 respectively, and about 360,000 m<sup>2</sup> in floor areas have been supplied into the office real estate market.
- The vacancy rate of offices is expected to remain high in the next two years because of new office buildings, which are currently under construction.

Supply of new offices and vacancy rates in Taipei City



### Office Market (3) Rent level

The A-class office average rent in Taipei CBD is 2,369 NTD/Tsubo (about 7,628 YEN/Tsubo).

#### Overview of major office areas (2015)

District	Supply floor space (Tsubo)	A-class office Vacancy rate (%)	B-class office Vacancy rate (%)	A-class office avg. rent (NTD/Tsubo/month)	B-class office avg. rent (NTD/Tsubo/month)
Taipei station district	60,310	2,200	1,690	18.3%	3.8%
Chung Shan North district	32,932	--	1,749	--	5.1%
Songjiang Nanjing district	260,920	1,937	1,728	25.0%	8.2%
Minsheng /Dun Hua N. district	262,776	2,289	1,747	10.3%	5.4%
Dun Hua/Jen-Ai district	175,763	2,456	1,772	8.3%	4.8%
Xinyi district	311,328	2,961	1,709	15.2%	2.0%

Average rent: 2,369 NTD/Tsubo/month

Note: 1 Tsubo = 3.306 square meters

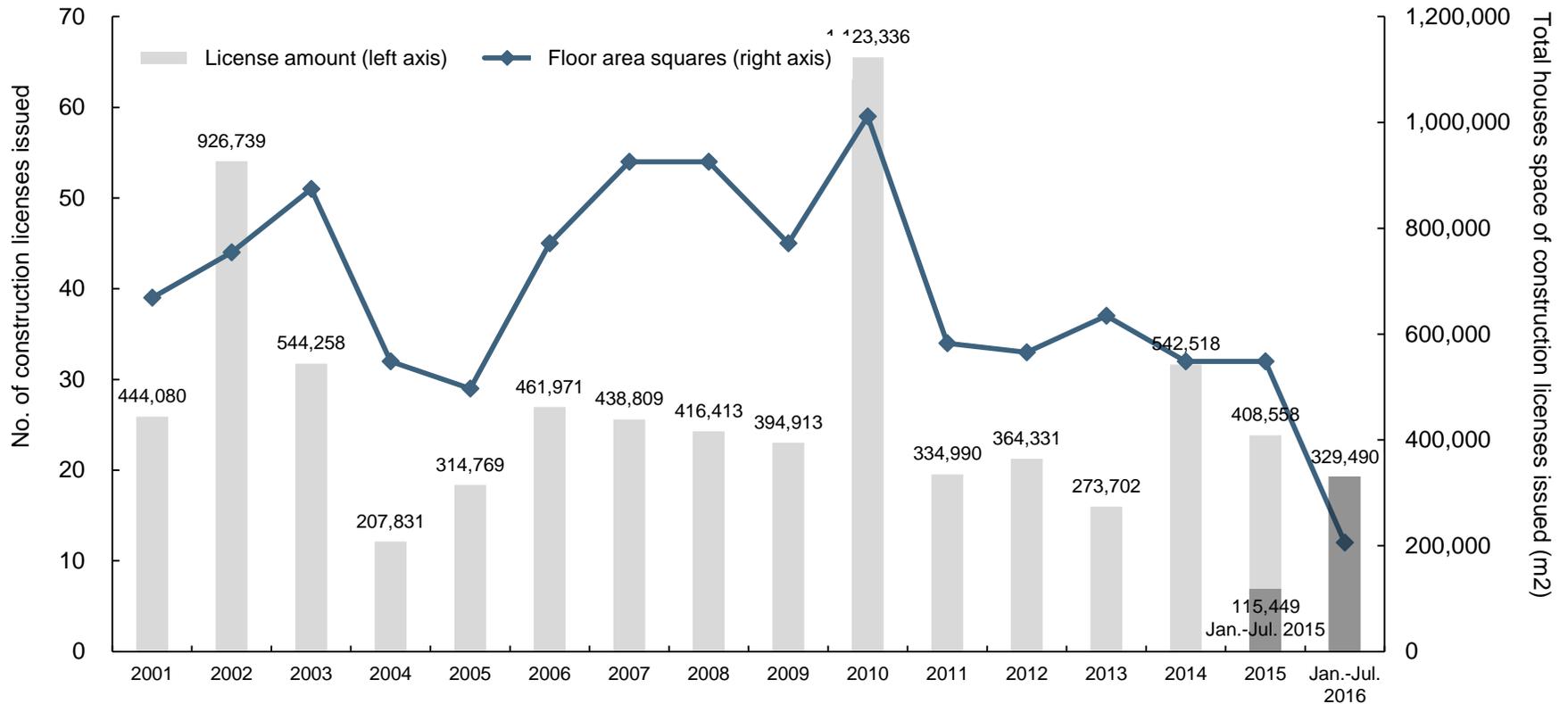
Source: NRI based on CBRE data

## Office Market (4) Supply prospect

A large number of new offices are expected to be supplied from 2016 onward.

- By the year 2016, numerous floor areas of offices are expected to be supplied into the real estate market, due to the fact that the total floor area licensed for construction between January and July in 2016 is 2.85 times of that in 2015.

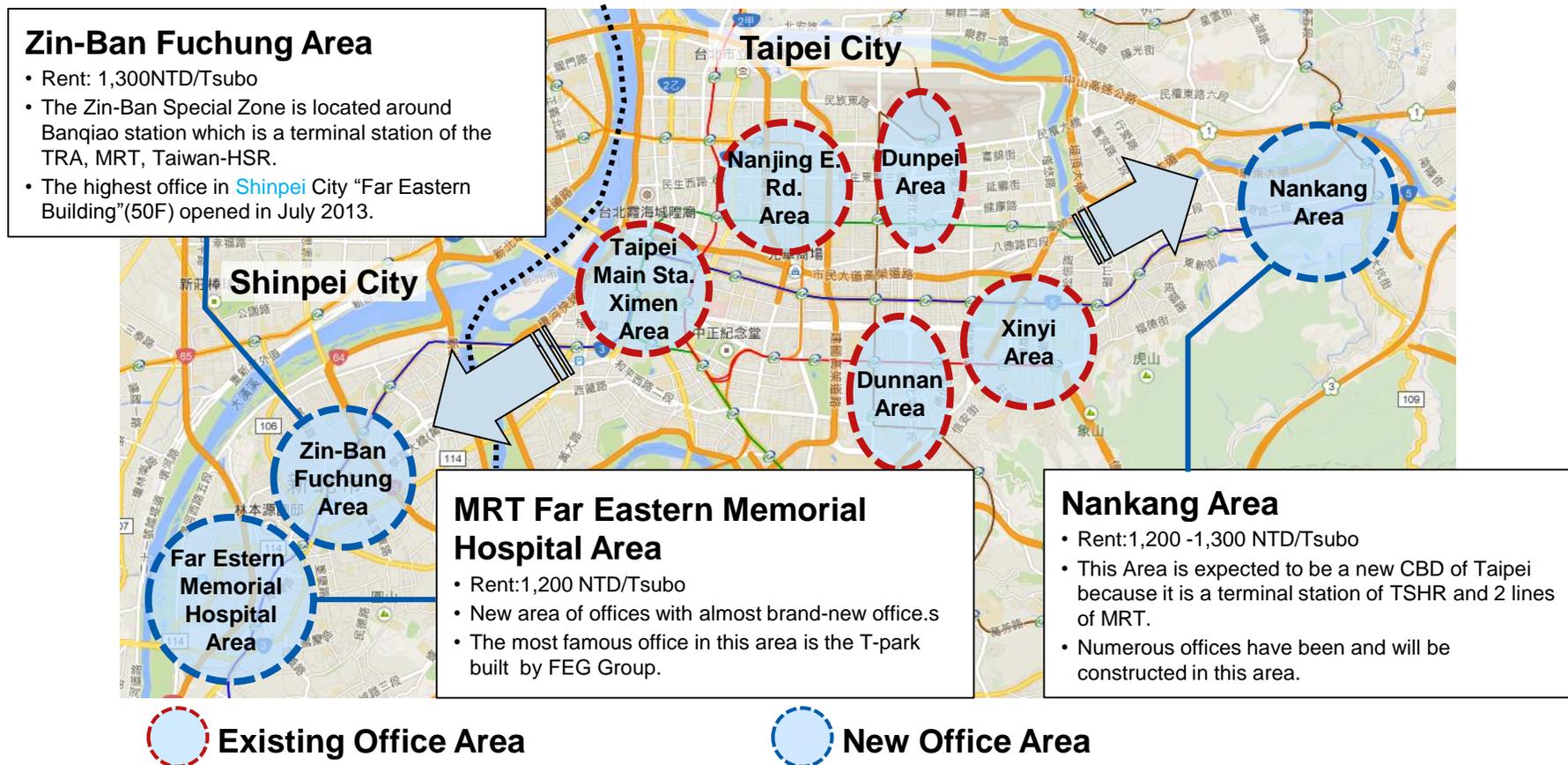
Number of office construction license issuances and total floor space licensed for construction in Taipei City



## Office Market (4) Supply prospect

Based on the redevelopment of lands outside the center of Taipei City, the Zin-Ban area and Nankang area, the supply of office floor areas are expected to increase.

- The Existing office areas are distributed in central Taipei city.
- Based on redevelopment of lands outside the center of Taipei City, the Zin-Ban area and Nakang area, there is a new office area of the Taipei metropolis.



## Taiwan

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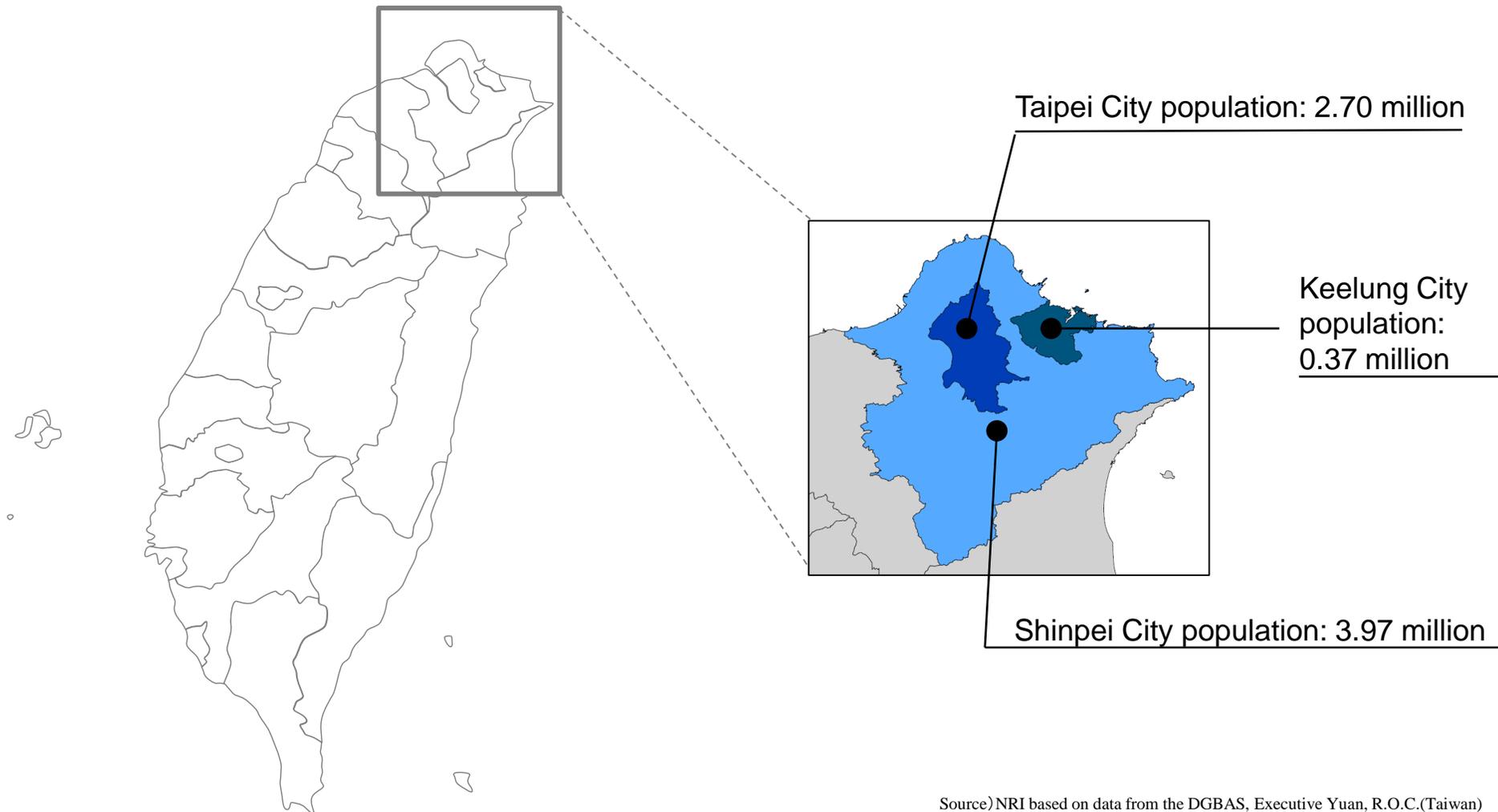
4

Hotel Market

## Residential Market (1) Population distribution

The total population of the Taipei Metropolis (including Taipei City, Keelung City and Shinpei City) is approx. 7 million. Nearly 30% of the Taiwan population is accumulated in these three cities.

The location and population of Taipei City, Keelung City and Shinpei City

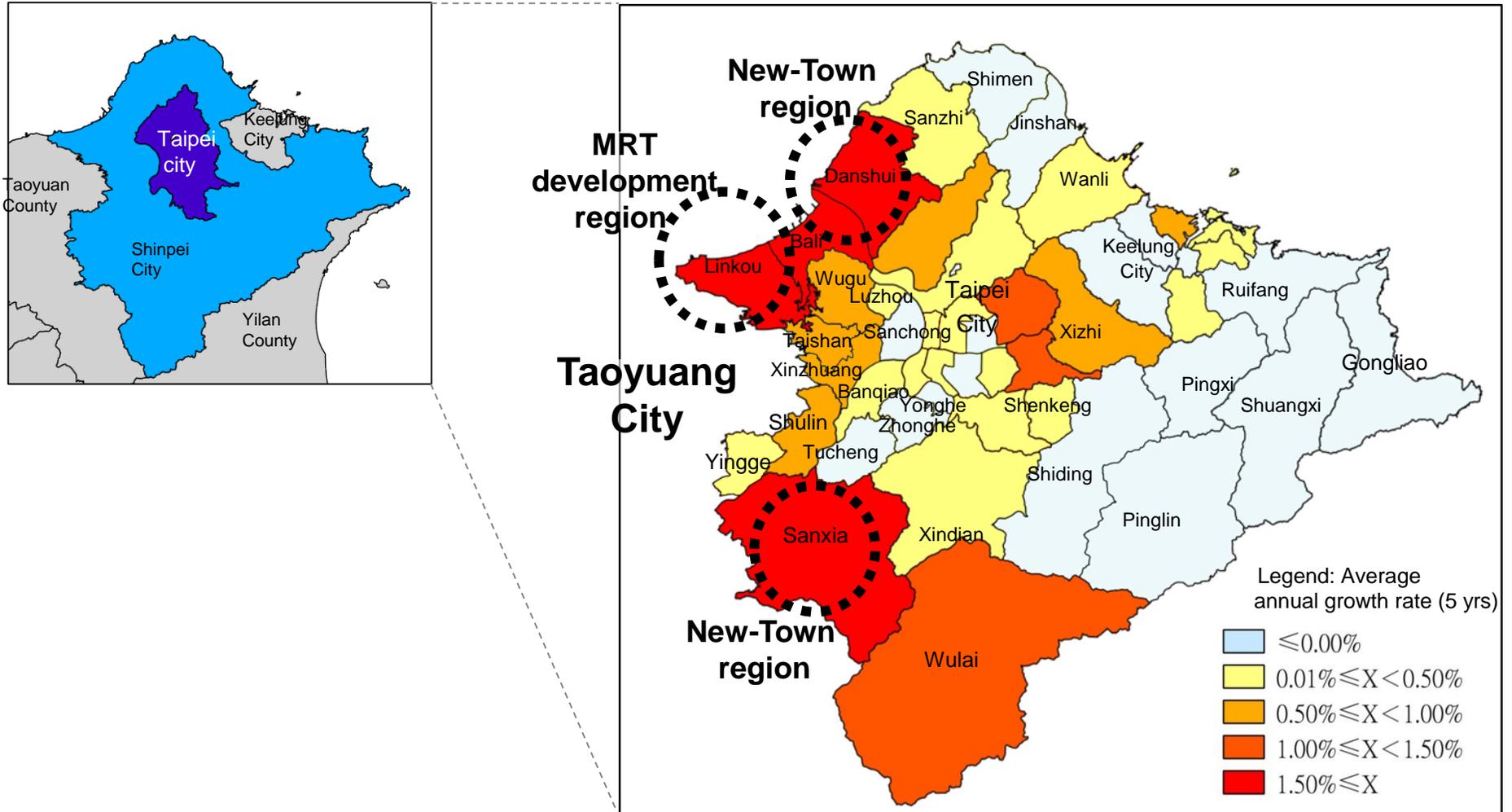


Source) NRI based on data from the DGBAS, Executive Yuan, R.O.C.(Taiwan)

### Residential Market (1) Population distribution

Based on statistical data, people have been moving into the west area over the past 5 years, especially to the areas located near the city border between Shinpei City and Taoyuang City.

Population Changes in Taipei City and Shinpei City over the last 5 years (2011-2015)



## Residential Market (1) Population distribution

The construction of the MRT in Taipei City and Shinpei City is one of the causes of the accelerating urban sprawl.

MRT construction status around Taipei Metropolitan Area

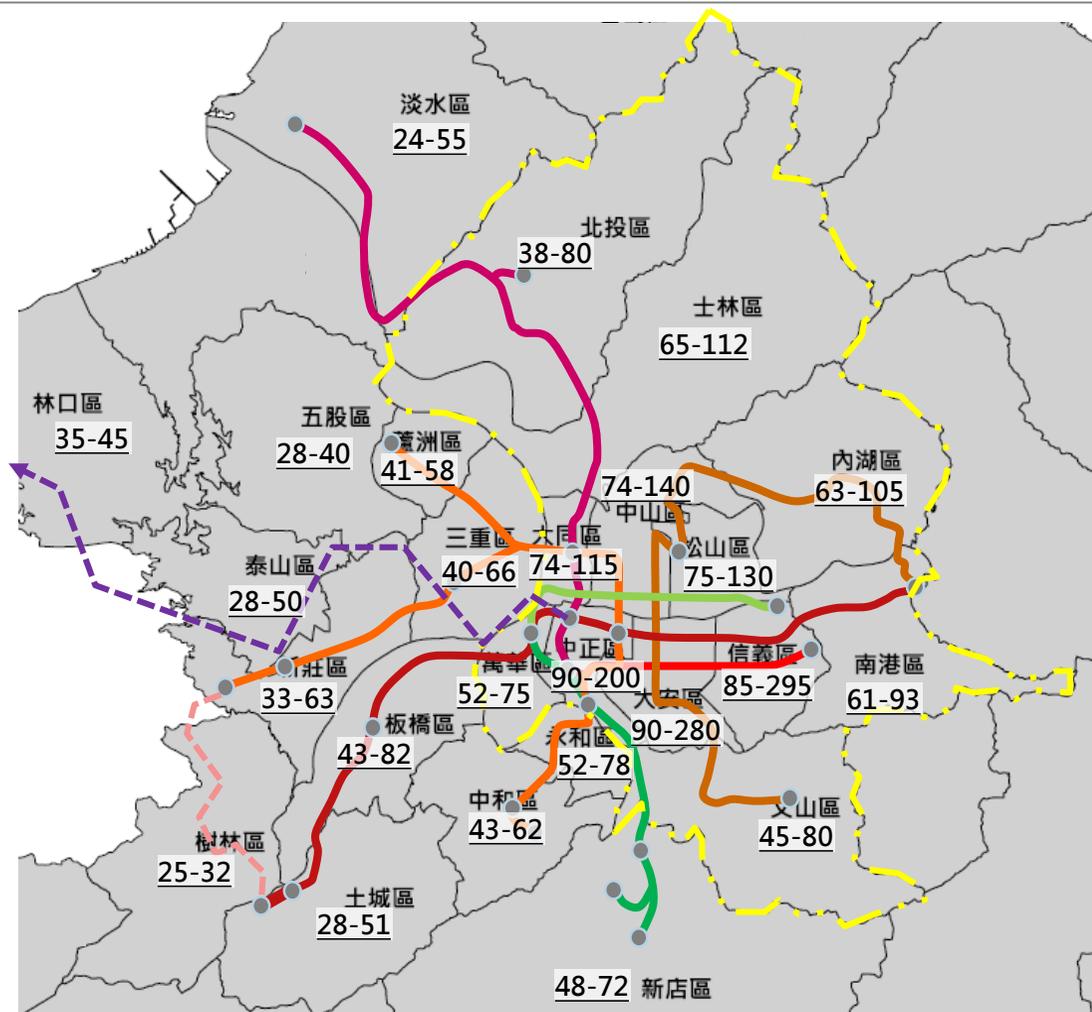


Line	Section	Year opened
Neihu-Muzha Line	Zhongshan Junior High School ↔ Taipei Zoo	Mar. 1996
	Zhongshan Junior High School ↔ Taipei Nangang Exhibition Center	Jul 2009
Danshui Line	Danshui ↔ Taipei Main Station	Mar. 1997
Zhonghe Line	Guting ↔ Nanshijiao	Dec. 1998
Xindian Line	Taipei Main Station ↔ Xindian	Nov. 1999
Nangang-Banqiao Line	Longshan Temple ↔ Taipei City Hall	Aug. 1999
	Longshan Temple ↔ Xinpu	Aug. 2000
	Taipei City Hall ↔ Kunyang	Dec. 2000
	Xinpu ↔ Yongning	May 2006
	Kunyang ↔ Nangang	Dec. 2008
	Yongning ↔ Dingpu	Dec 2014
	Nangang ↔ Taipei Nangang Exhibition Center	Feb. 2011
Luzhou Line	Luzhou ↔ Zhongxiao Xinsheng	Nov. 2010
Xinzhuang Line	Fu Jen Univ. ↔ Daqiaotou	Jan. 2012
	Zhongxiao Xinsheng ↔ Guting	Sep. 2012
	Huilong ↔ Fu Jen Univ.	Mar. 2013
Xinyi Line	CKS Memorial Hall ↔ Elephant Mt.	Dec. 2013
Songshan Line	Songshan ↔ Ximen	Nov. 2014
Circular Line	New Taipei Industrial Park ↔ Dapinglin	Jun. 2018
Taoyuan Airport MRT	Taipei Main Station (A1) ↔ Jhongli (A21)	Nov. 2016
Wanta Line	CKS memorial hall ↔ Huilong	Dec. 2020

## Residential Market (2) Housing price

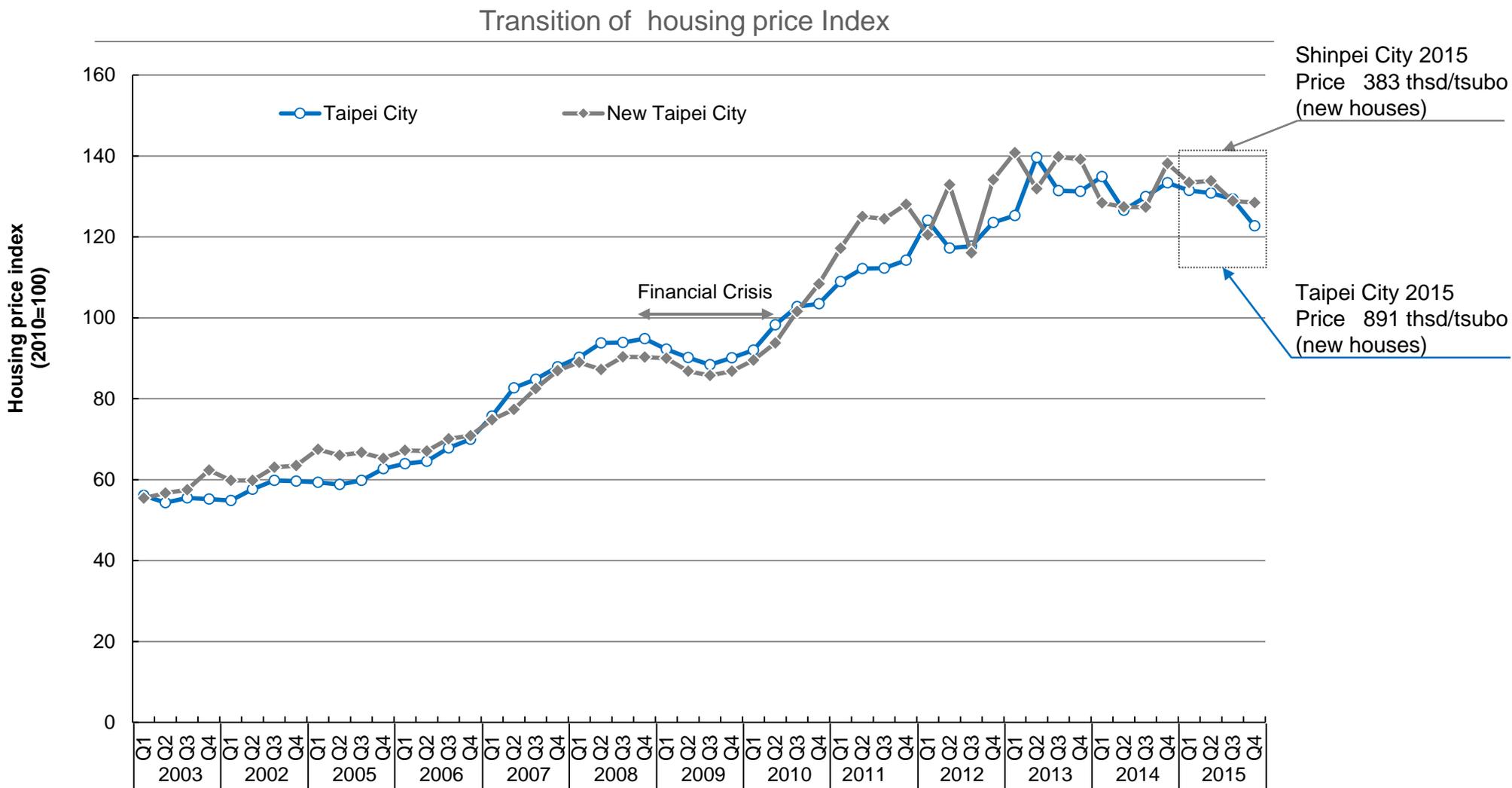
Housing prices in the city center of Taipei exceed 1 million NTD/Tsubo.  
Prime luxury properties even approximate 3 million NTD/Tsubo.

Unit housing prices at major areas near the MRT station in Taipei City and Shinpei City (Unit:10,000 NTD/Tsubo)



## Residential Market (2) Housing price

It can be observed that housing prices reached an apex in 2013, and after that the housing price index fluctuated between around 140 and 120.



## Residential Market (2) Housing price

Compared to the selling price, the rent levels of housing are extremely low and the cap rates of many properties in Taipei City don't reach even 2%.

Cap rates of properties in Taipei City and Shinpei City

### Taipei City

Location	Zhongshan Dist (Near MRT Nanjing Fuxing Sta.)	Neihu Dist (Near MRT Neihu Sta. )	Xinyi Dist (Near MRT Taipei 101 / World Trade Center Sta.)
Layout	2LDK	3LDK	2LDK
Area	20 Tsubo	30 Tsubo	29 Tsubo
Age	1 year	17 years	6 years
Price	22.80 million NTD	24.00 million NTD	38.00 million NTD
Rent	33,000 NTD	32,000 NTD	53,000 NTD

### Shinpei City

Address	Banqiao Dist (Near MRT Banqiao Sta.)
Layout	2LDK
Area	27 Tsubo
Age	8 years
Price	19.00 million NTD
Rent	28,000 NTD

Cap Rate

1.7%

1.6%

1.7%

Cap Rate

1.8%

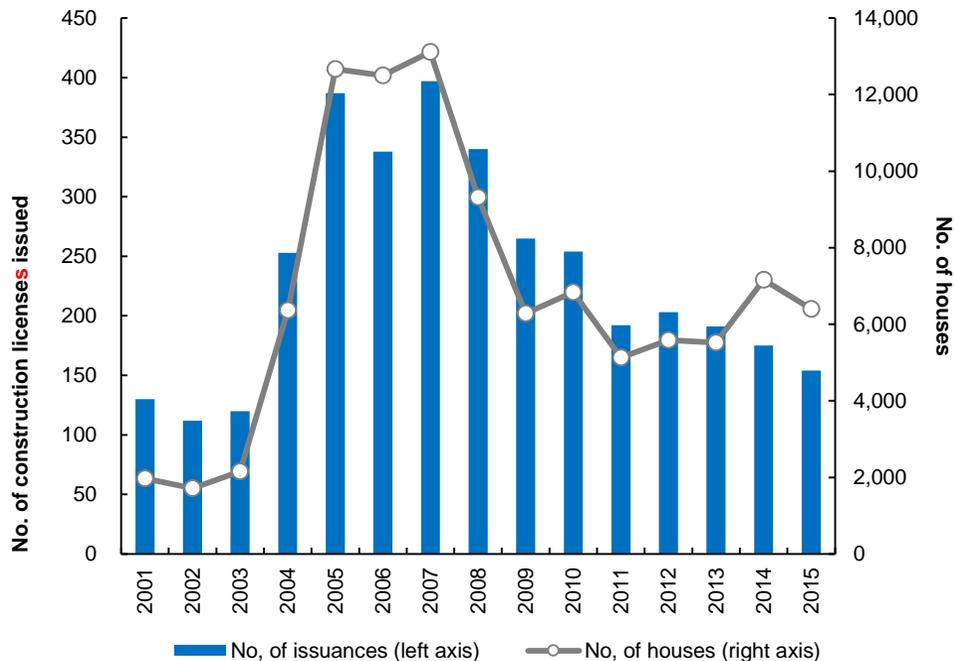
### Residential Market (3) Supply prospect

The number of construction license issuances has decreased since 2012 and 2013. The number of houses in the Taipei Metropolis began to decline after 2013.

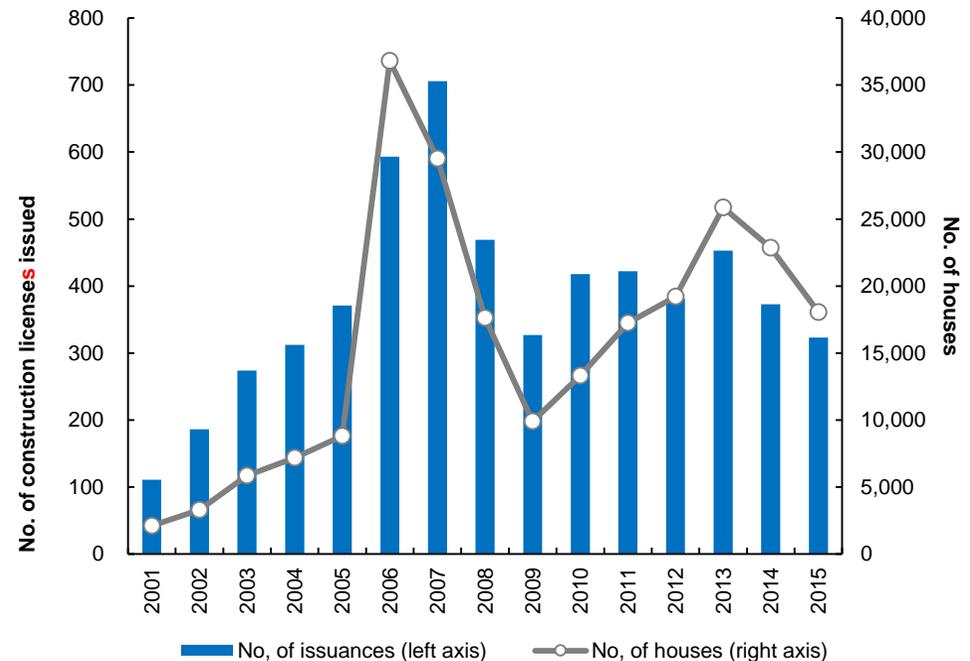
- In Shinpei City, the amount of housing construction and the license issuances have increased in the last two years; therefore, the whole supply of housing will still be expected to increase for several seasons.
- On the other hand, the government is now considering policies to supply reasonable housing and is preparing social housing development with public lands.

#### The Number of housing construction license issuances

Taipei City



Shinpei City



## Taiwan

Integration within Greater China brings satisfactory in Hotel domain.

1

Macro Fundamentals

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Office Market

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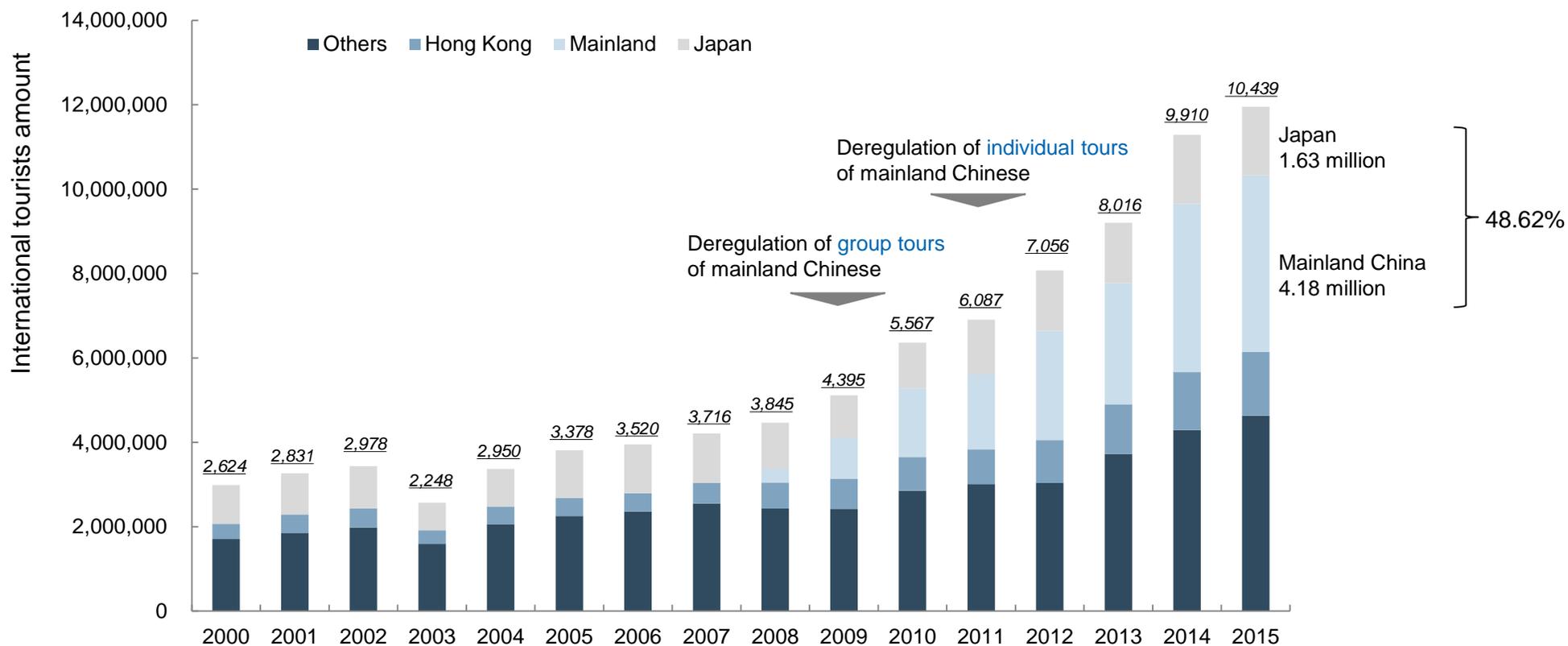
Hotel Market

## Hotel Market (1) Changes in number of international tourists visiting Taiwan

Due to the deregulation of mainland China's tourism to Taiwan, the number of Chinese tourists visiting Taiwan has increased significantly. The government is now planning to attract tourists from Southeast Asian countries. The number of those tourists is expected to increase.

- Japanese and mainland Chinese tourists account for 48.62% of the number of tourists to Taiwan.
- Government is now planning to explore a new market, and trying to attract tourists from Southeast Asia.

The number of international tourists to Taiwan (By place of residence)

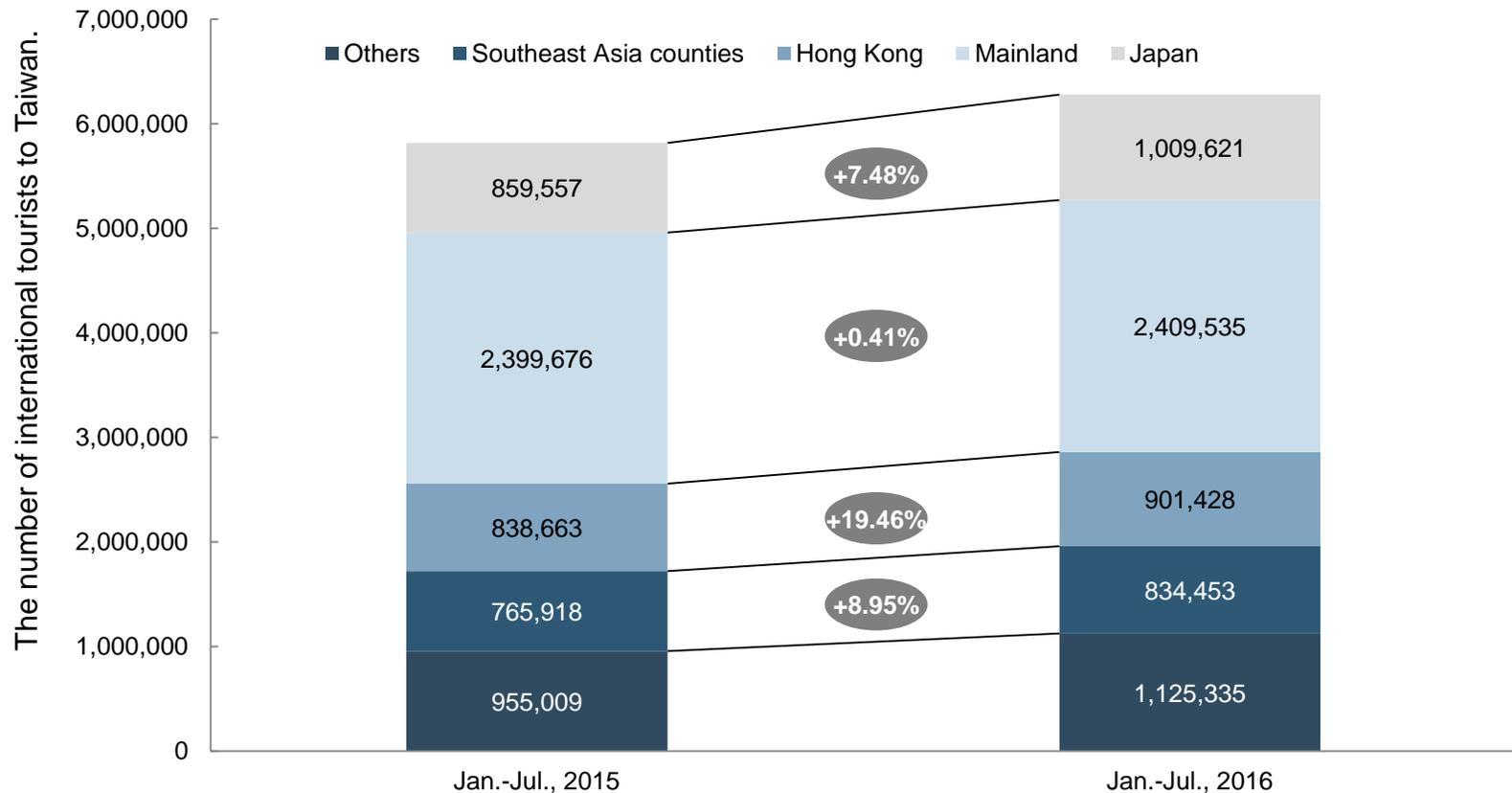


Source: NRI based on statistics by the Tourism Bureau of the MOTC, R.O.C. (Taiwan)

## Hotel Market (1) Changes in number of international tourists visiting Taiwan

Comparing the number of international tourists from Southeast Asian countries between Jan. and Jul. in 2015 with that in 2016, the growth rate is 9%.

Comparison of the number of international tourists to Taiwan between Jan. and Jul. in 2015 and 2016

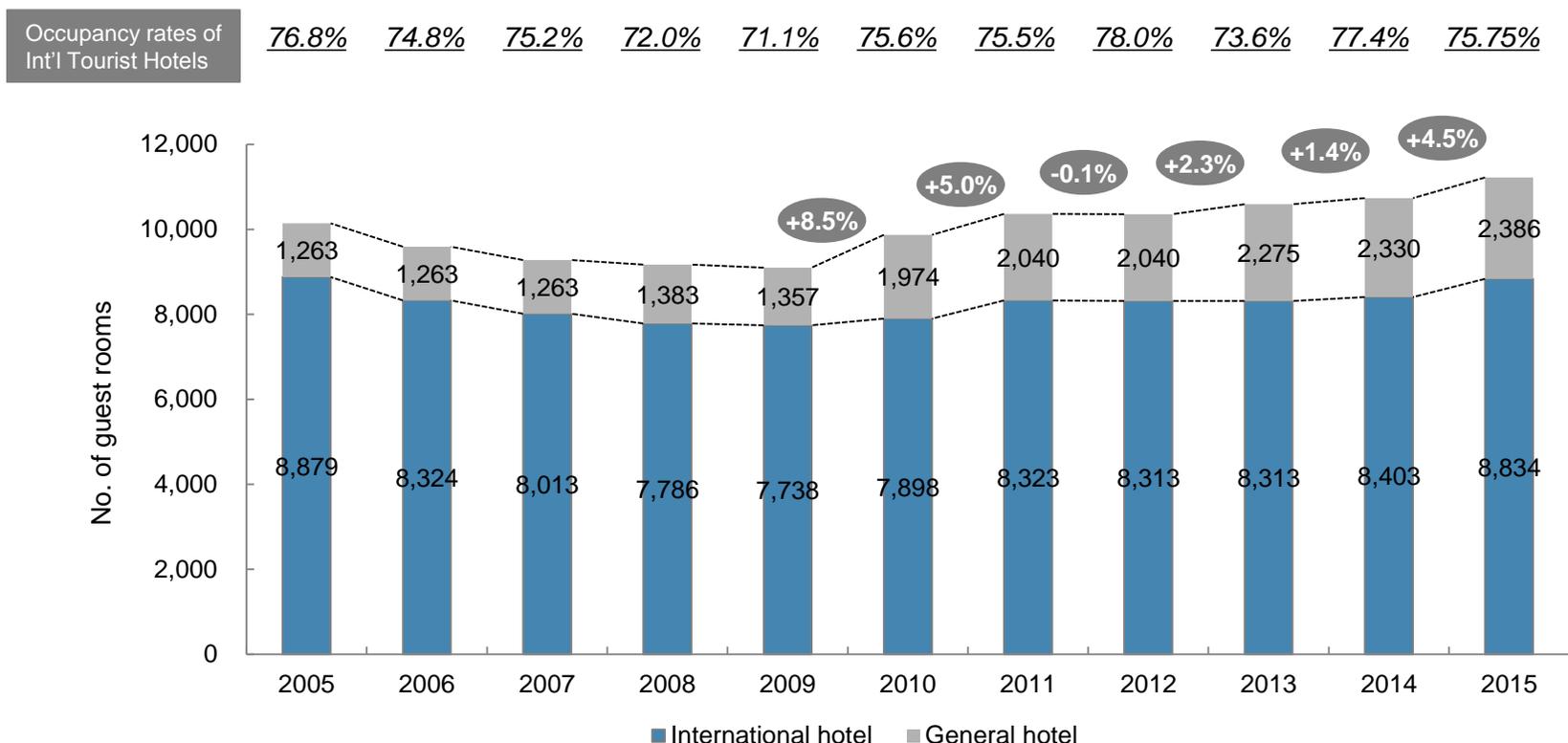


Source: NRI based on statistics by the Tourism Bureau of the MOTC, R.O.C. (Taiwan)

## Hotel Market (2) Supply and demand for hotels in Taipei City

The occupancy rate of hotels in Taipei City has remained at a high level, higher than 70%.

The number of guest rooms and occupancy rates of tourist hotels in Taipei City



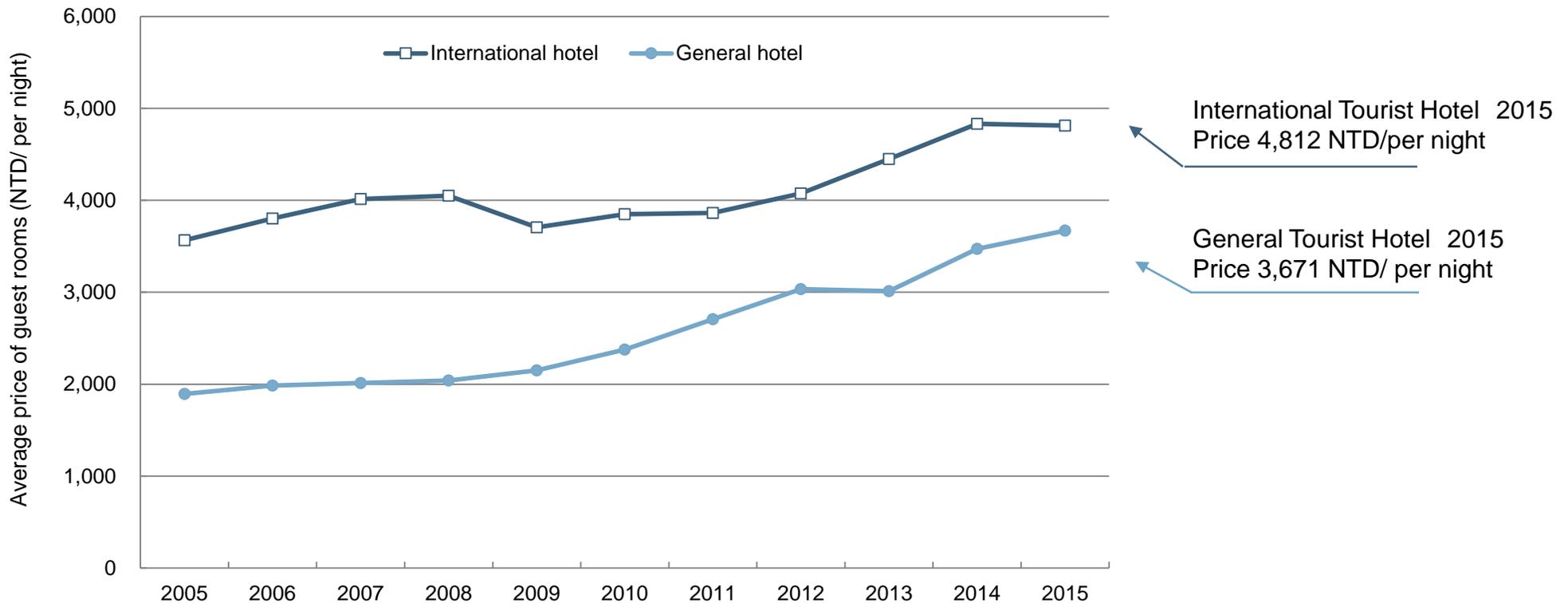
Note: Tourist hotels are hotels that meet the criteria set by the Tourism Bureau of the Ministry of Transportation and Communications, and are broken down into international tourist hotels and general tourist hotels according to their levels. There are 25 international tourist hotels in Taipei as of the end of December 2011.

Source: NRI based on statistics by the Tourism Bureau of the MOTC, R.O.C. (Taiwan)

### Hotel Market (3) Hotel prices in Taipei City

There is an upward trend in the price of guest rooms of tourist hotels in Taipei city because of the increasing numbers of tourists.

The average price of guest rooms of international tourist hotels and general tourist hotels in Taipei City



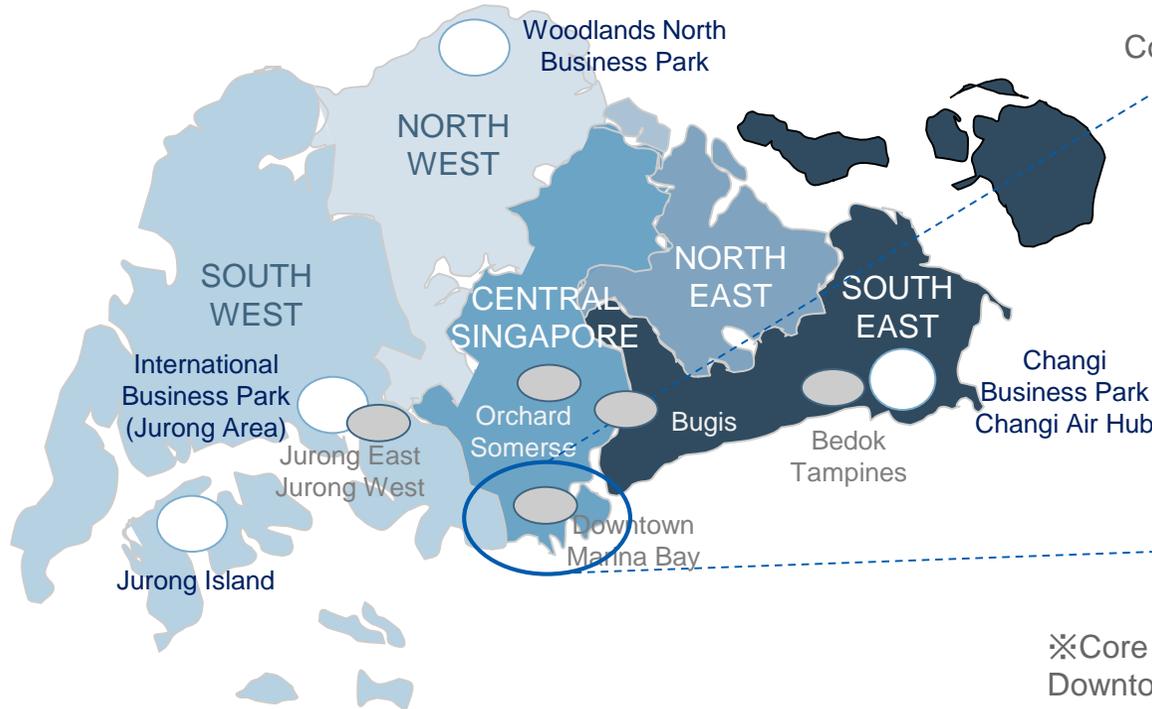
Source: NRI based on statistics by the Tourism Bureau of the MOTC, R.O.C. (Taiwan)

<b>China</b>	Indeterminacy of market is rising cause of facing transition stage.
<b>Korea</b>	Residential and Real Estate Investment are stable although economic stagnation.
<b>Taiwan</b>	Integration within Greater China brings satisfactory in Hotel domain.
<b>Singapore</b>	Wider domains keep favorable, but residential and commerce show signs to weaken.
<b>India</b>	Economic growth improves broad domains in real estate.
<b>Russia</b>	Residential remains stable in spite of largely affected by devalued currency.

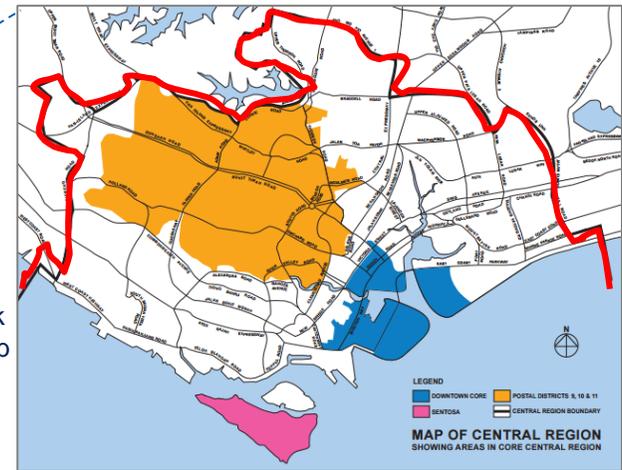
(Reference)

## Regional Map of Singapore

- The Main Commercial Area
- Industrial Park



Core Central Region and Rest of Central Region



Source: URA

※Core Central Region is postal districts 9, 10, 11 Downtown Core Planning Area and Sentosa (Blue, Yellow and Pink).  
Rest of Central Region is the area within the red line except for the Core Central Region.  
Outside Central Region is outside the red line of the area.

## Singapore

Wider domains keep favorable, but residential and commerce show signs to weaken.

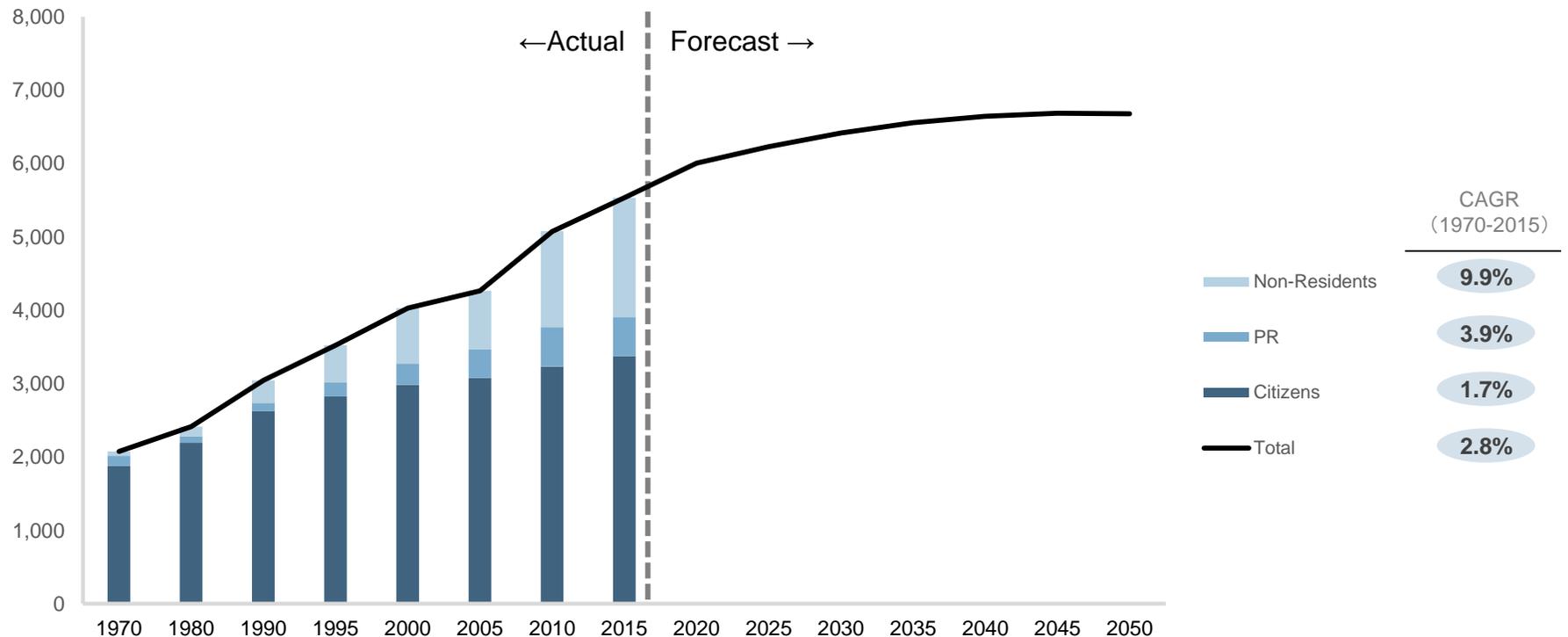
- 1 Macro Fundamentals
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- 5 Logistics Property Market
- 6 Hotel Market
- 7 Real Estate Investment Products

## Population Trend

Singapore's open immigration policy has allowed the population to expand very rapidly in the past, but population growth is expected to be moderate with the tightening of this policy.

- Population growth for non-residents and permanent residents began to grow rapidly from the 1990s, while the growth of the citizen base is largely attributed to permanent residents taking up citizenship in Singapore.

Population in Singapore ('000)



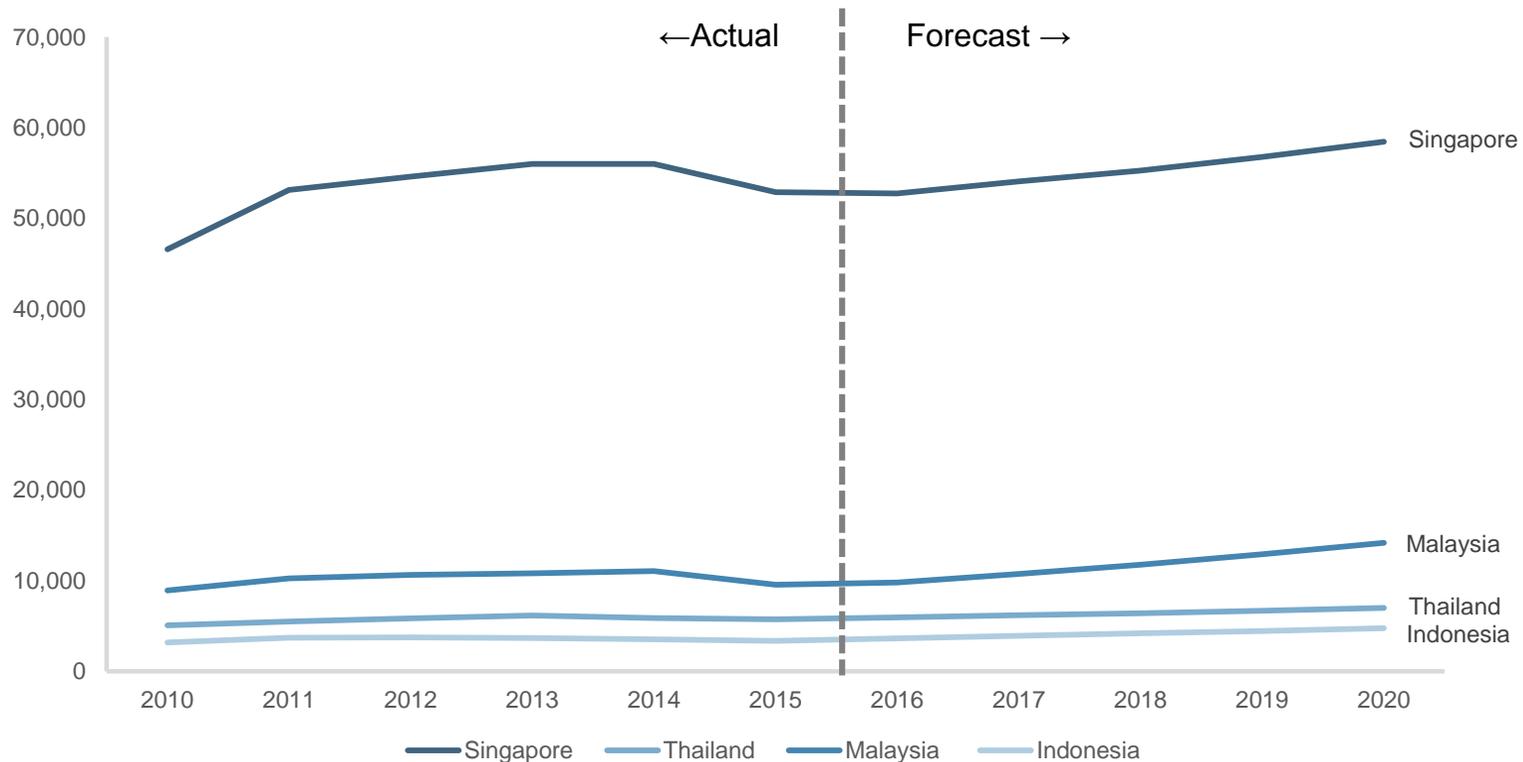
\*A balanced, moderate immigration policy is assumed for estimation of population growth from 2016-2050.

\*Non Residents includes population residing in Singapore for the long-term, but not holding PR or Citizenship (e.g. EP, Worker Pass etc.)

## Singapore has one of the highest GDPs per capita in the world and far surpasses neighboring countries in the region

- GDP per capita is also expected to continue growing from 2016-2020.

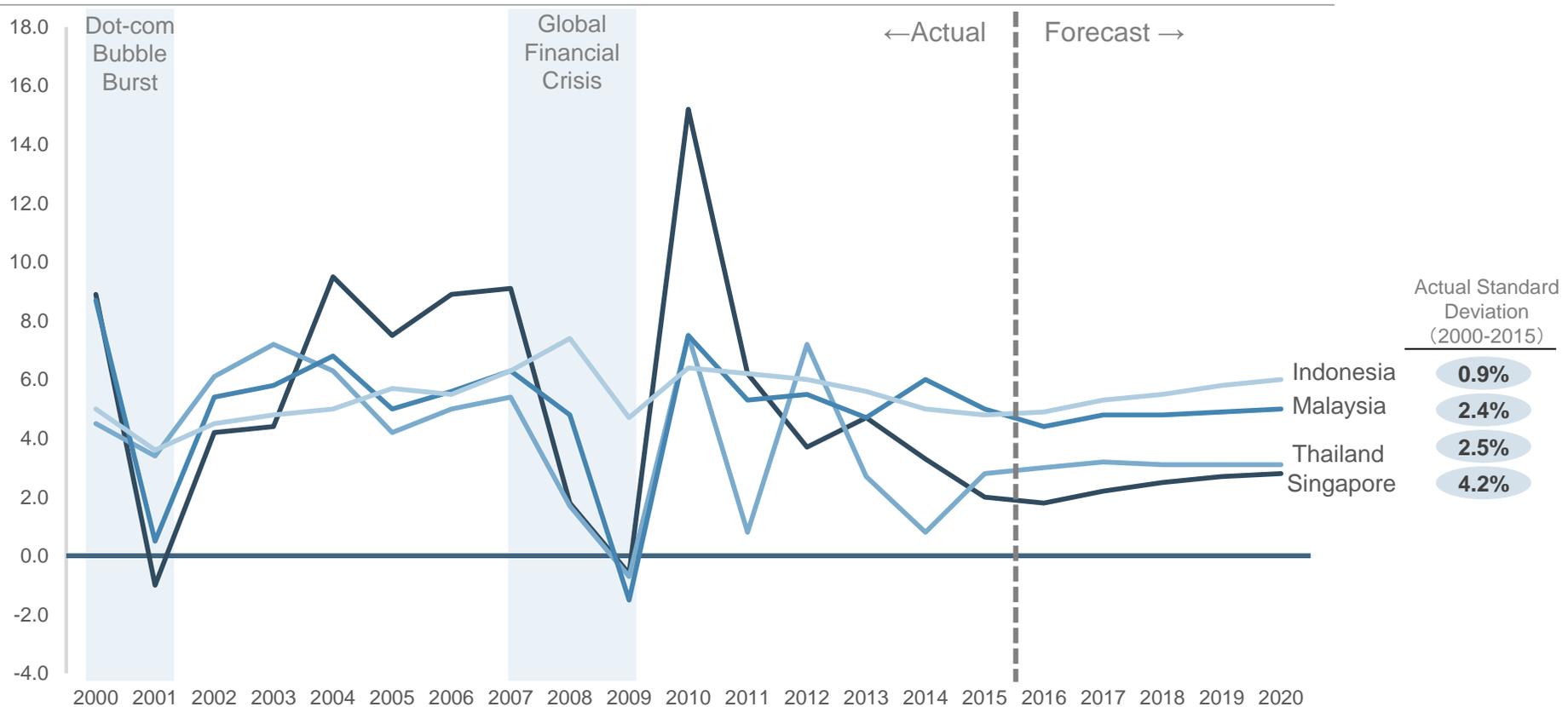
Nominal GDP per Capita (USD)



# Despite the strong GDP per capita figures, Singapore's growth rate remains volatile due to the nature of its open economy.

- The effects of global business cycles exert a more pronounced effect on the GDP growth rate, as the Singapore economy is closely linked to the global trade cycle.

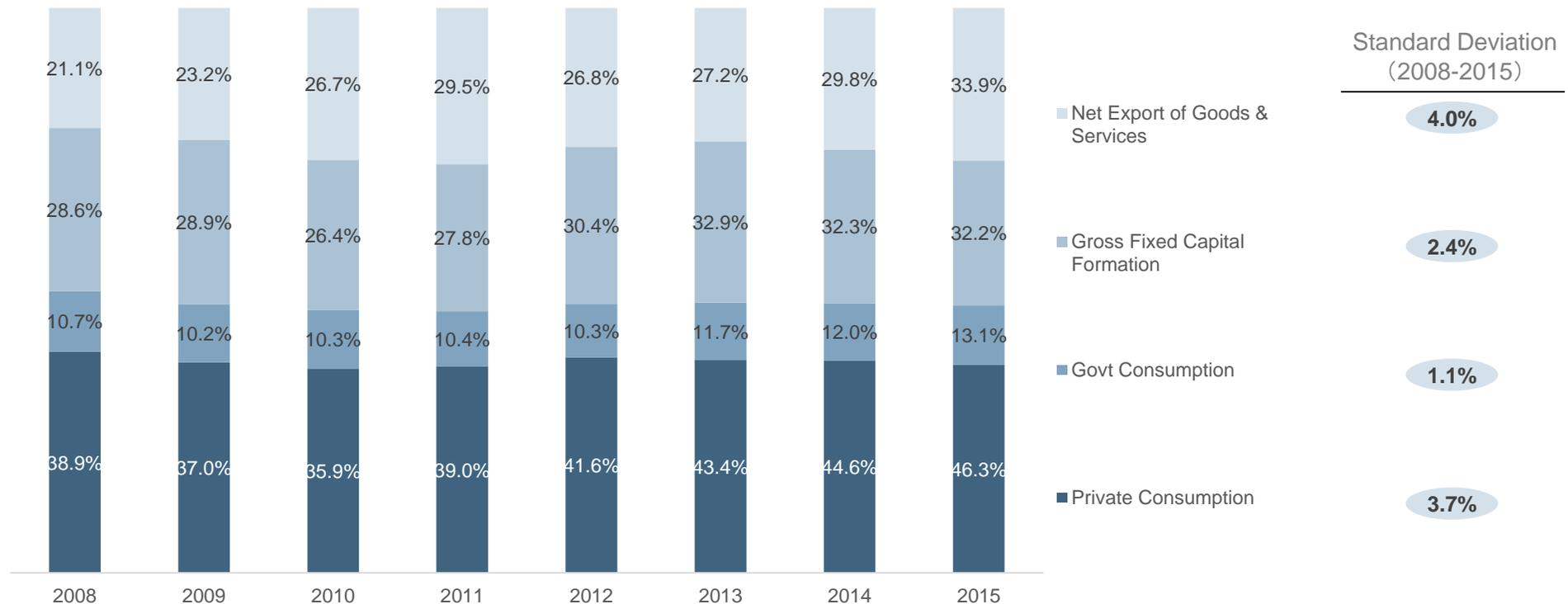
Real GDP growth rate of major economies (%)



This is not surprising, given that the export of goods & services itself constituted one-third of the overall GDP in 2015 and has been the most volatile component of the GDP

- Both domestic & external consumption (net exports of goods & services) are volatile and exhibit relatively large swings in periods of economic growth and recession.

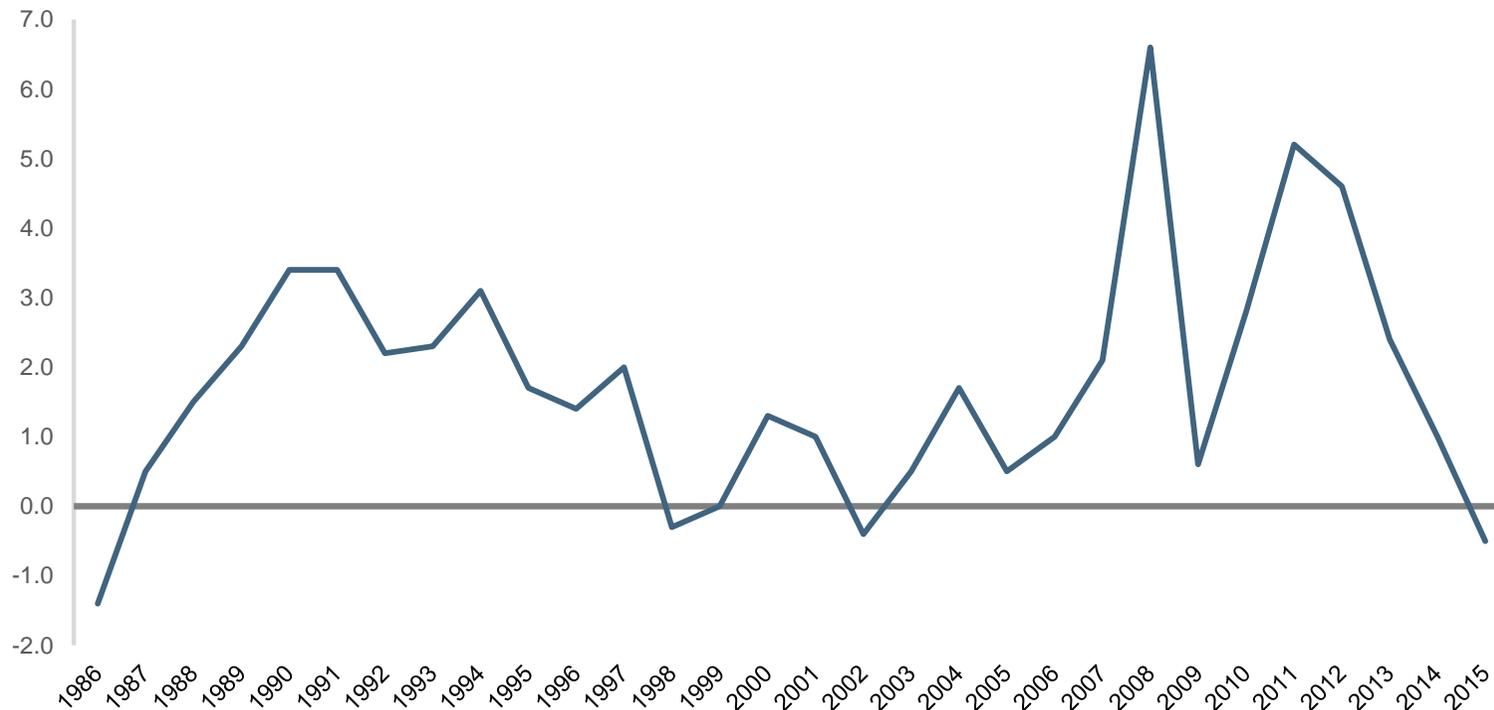
Share of GDP by Expenditure (%)



## The Consumer Price Index (CPI) growth rate dipped slightly into the negative range in 2015, as a result of declining oil prices, accommodations & transportation costs

- The inflation rate is expected to stay low in 2016, as new supplies of completed government housing (HDB) & Certificates of Entitlement (required for ownership of vehicles) help to keep accommodations and transportation costs low.

*Annual y-o-y change in Singapore's CPI (%)*



The SGD has generally been on an appreciating trend, being adjusted and watched very closely by the central bank as a tool to keep prices stable.

- The Singapore Dollar does not exhibit much volatility, as it operates under a managed float system within an undisclosed band, pegged to an undisclosed currency baskets.

*S\$ Nominal Effective Exchange Rate (S\$NEER)*



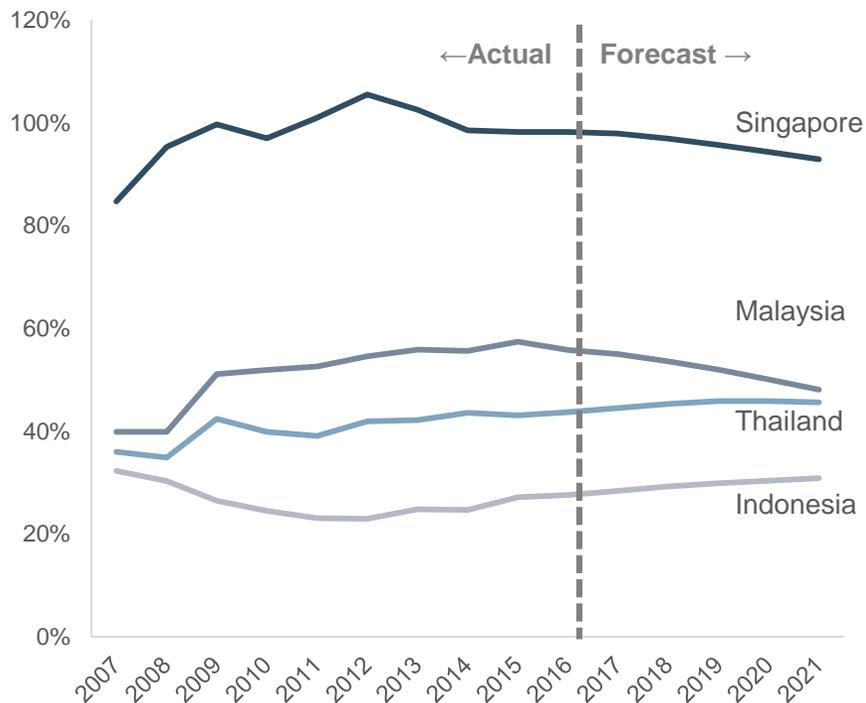
\*S\$NEER reflects exchange rates against currency baskets, instead of any single currency.

\*Index Jan 1999 = 100

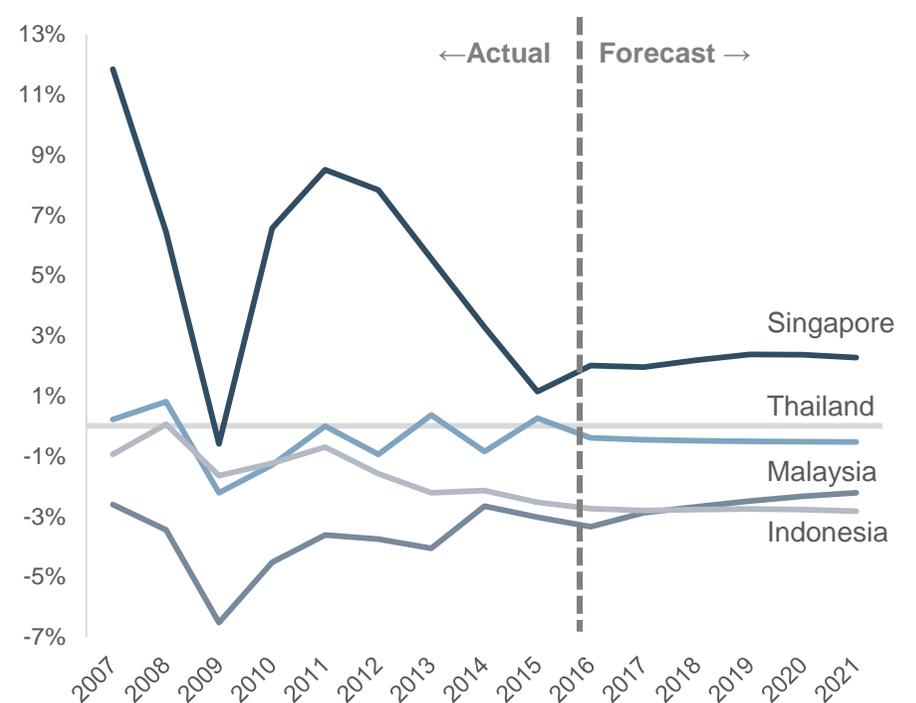
## In spite of the relatively high level of government debt, Singapore continues to be a net creditor country with AAA ratings from international credit rating agencies

- Borrowings by Singapore are matched by even higher levels of assets, and the country does not run any fiscal deficits.
- The government is instead, borrowing in order to issue debt securities, which are required in the domestic bond market to provide a risk-free benchmark against other corporate debt securities.

Ratio of Government Debt to GDP



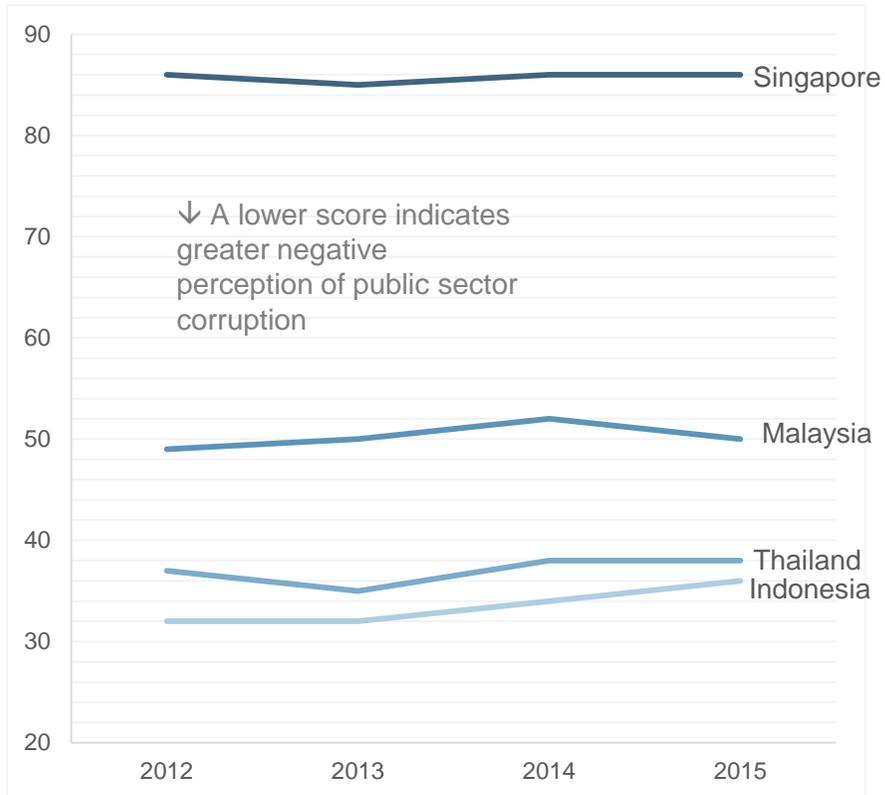
Ratio of Government Primary Net Lending/Borrowing to GDP (%)



## Consistently ranked among the top 10 countries with the lowest public perception of corruption, political risk in Singapore remains low

■ Low political risk is one of the factors in Singapore that has contributed to a conducive environment for business & investment.

*Trend of Transparency International Corruption Perception Index among selected ASEAN Countries (2015)*



*Top 10 countries of International Corruption Perception Index (Higher ranking indicates lower risk)*

RANK	2013	2014	2015
1	DENMARK	DENMARK	DENMARK
2	NEW ZEALAND	NEW ZEALAND	FINLAND
3	FINLAND	FINLAND	SWEDEN
4	SWEDEN	NORWAY	NEW ZEALAND
5	NORWAY	SWITZERLAND	NETHERLANDS
6	<b>SINGAPORE</b>	<b>SINGAPORE</b>	NORWAY
7	SWITZERLAND	NETHERLANDS	SWITZERLAND
8	NETHERLANDS	INDONESIA	<b>SINGAPORE</b>
9	AUSTRALIA	LUXEMBOURG	CANADA
10	CANADA	CANADA	GERMANY

## Singapore

Wider domains keep favorable, but residential and commerce show signs to weaken.

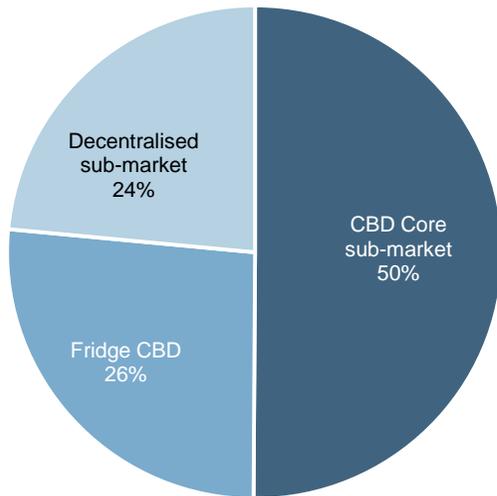
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## Office market– Geographic Area

**76% of the existing offices are located in the CBD area.**

**The Singapore government has extended the Central Business District toward Marina Bay to support the demand of quality office spaces.**

Office Area in Singapore  
2015



**CBD Core sub-market:** Raffles Place, Shenton Way, Marina Centre, Marina Bay  
**Fringe CBD:** Tanjong Pagar, Beach Road/ City Hall, Orchard Road  
**Decentralized sub-market:** Alexandra/ Harbor Front, Thomson/ Novena, Tampines, River Valley

- Existing central business district is located at Raffles Place, Shenton Way and Tanjong Pagar.
- To position Singapore as one of the leading financial hubs, the government plans to double the size of the existing financial center by extending towards Marina Bay.
- Recent developments are expected to provide more than 1.1 million sqm of premium office space upon completion.

Major Office Area in Singapore Central Business District

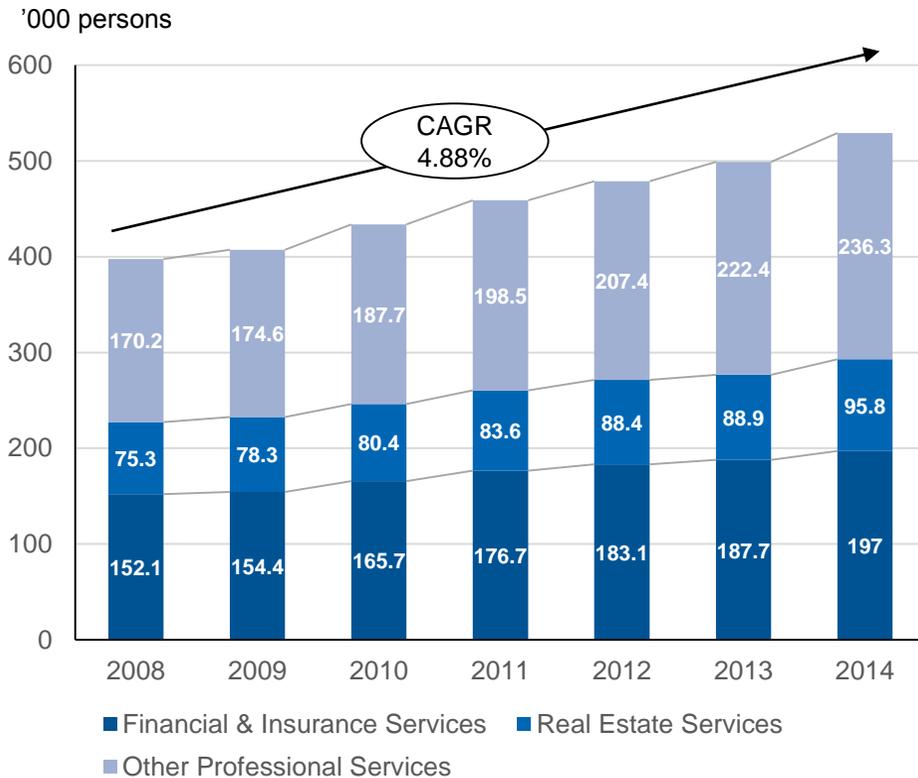


	Site area (ha)	Total Development GFA (mil sqm)	Total Office GFA (mil sqm)
Raffles Place	31	1.77	1.1
Extension of existing financial district	85	4.15	2.82 (estimated)
Recent developments	24	1.6	1.1 (estimated)

## Office market- Demand Trend

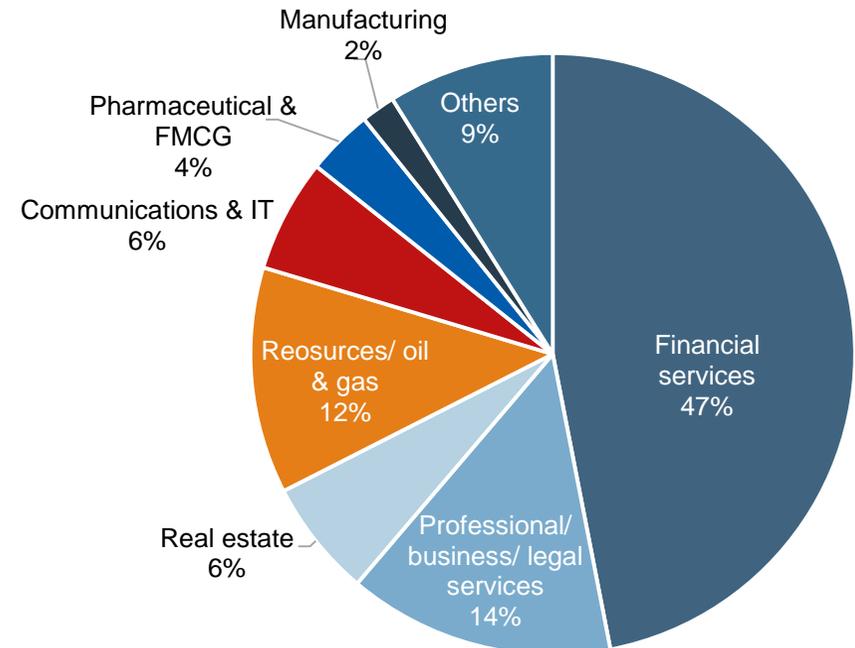
**Professional institutions occupy 67% of the office space. A history of steady growth in professional service employment has secured medium to long-term prospects for the office market.**

*Employment by Professional Service Industry*



Source: Ministry of Manpower

*Office Tenant Profile in Singapore  
2006-2012: Net expansion*

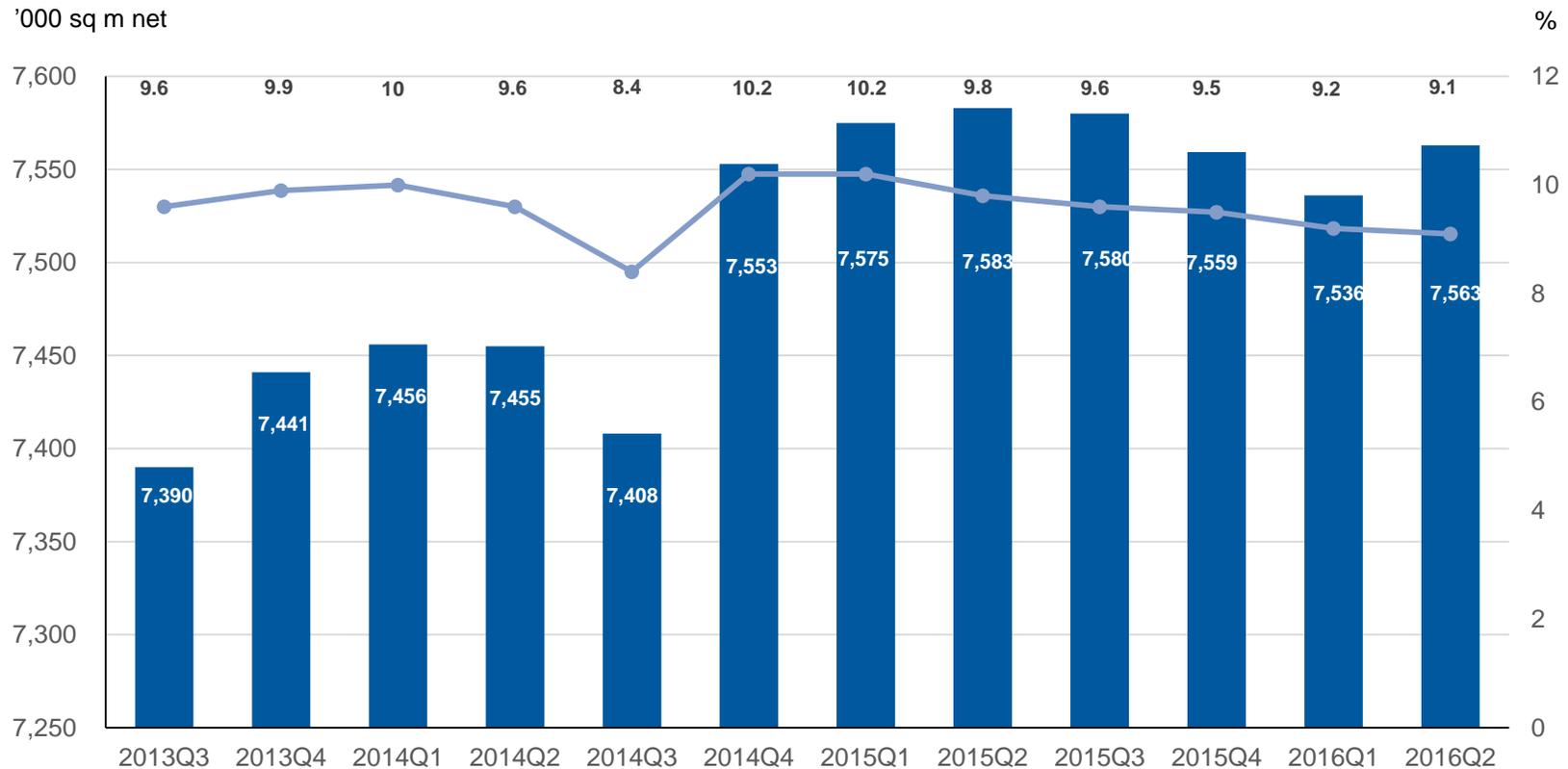


Source: Jones Lang LaSalle

## Office market- Stock and Vacancy

Major office developments were completed and the vacancy rate increased to around 2% in the last quarter of 2014. Then the vacancy rate started to reduce gradually until the first half of 2016

Office Stock & Vacancy Rate in Singapore

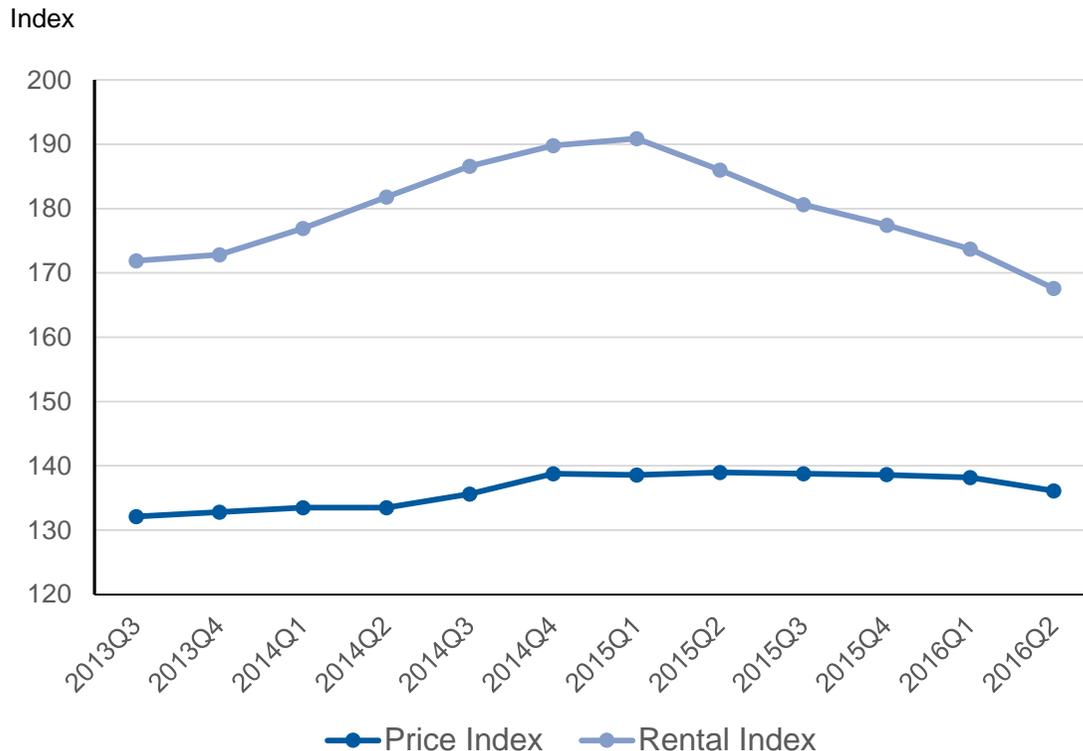


Source: Urban Redevelopment Authority

## Office market– Price and Rental Index

Office rent has been in a downward trend since 1Q15 due to a significant increase in supply in 4Q14. The capital value of office space has stagnated due to the downward pressure of the declining rentals.

*Price and Rental Index of Office Space in Central Region*



- The Singapore office rental market performed well in 2014 due to tight market conditions. However, office rental growth has been subdued since the first quarter of 2015.
- The price of office property had been stagnant since the first quarter of 2015 and eventually fell due to the underperforming rental market and increasing supply.

Note:

- 1) The price indices are compiled from information in caveats (a legal document lodged by a purchaser to protect her/ his interests after an option purchased is exercised or a Sales & Purchase Agreement is signed) lodged in the option stage with the Singapore Land Registry. The price in 4Q98 is used as the base reference price of the index.
- 2) The Rental Index of office space is obtained from the Inland Revenue Authority of Singapore (IRAS).

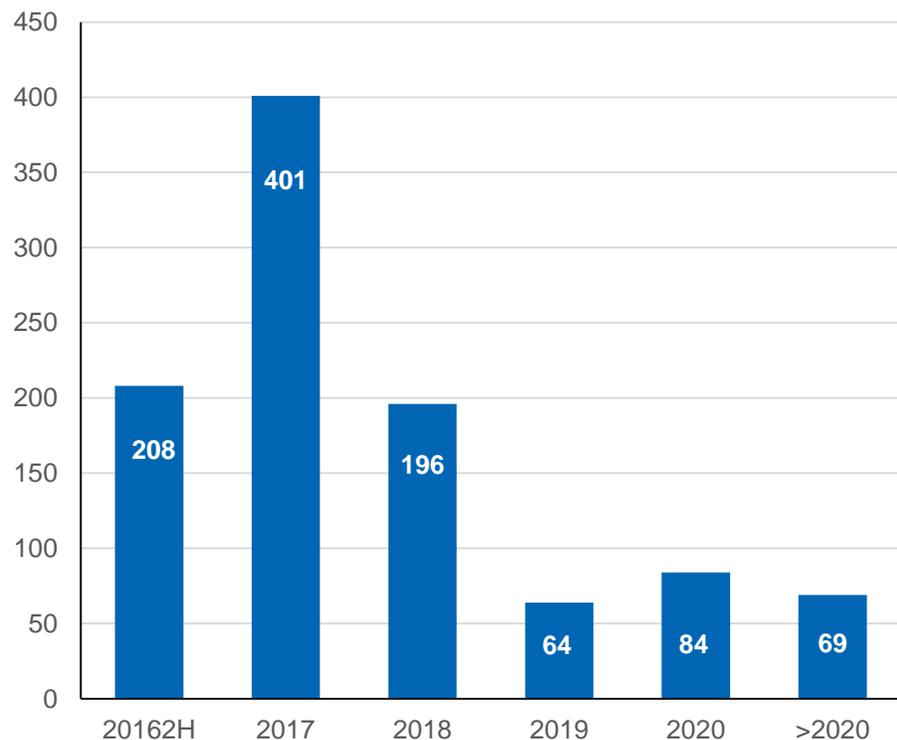
Source: Urban Redevelopment Authority

## Office market– Future Supply

**A sharp rise in office space supply is expected to outstrip the growth in demand in the coming years. The pressure on the vacancy rate is expected to rise.**

*Pipeline Supply of Office Space in Singapore*

'000 sqm gross



Source: Urban Redevelopment Authority

- Out of office supply from 2015 Q2 to 2018 Q4, 52.8% is located in the Core CBD, 31.1% in the Fringe CBD and the remaining in the decentralized sub-markets.
- Around one-fifth of the future supply is sold on a strata-titled basis; this means more investment opportunity for investors that are looking for smaller and more affordable individual units of office space.

Property	Total Office GFA ('000 sqf)	Expected year of completion
Marina One	1,880	2016
Guoco Tower	850	2016
Duo	570	2016
5 Shenton Way	280	2016
Robinson Tower	220	2017
Vision Exchange	500	2017
Oxley Tower	110	2017
Arc 380	100	2017
Frasers Tower	650	2018

Source: Mapletree Commercial Trust

## Office market– Investment

The office investment market continues to attract investors looking for mid to long-term gains.

### Major Recent Investment in Office Market

Property	Transaction Amount (SGD)	Buyer	Seller	Transaction Year
Asia Square Tower 1	3.38 billion	Qatar Investment Authority	BlackRock	2016
CapitaGreen (60% stake)	960.30 million	CapitaLand Commercial Trust		2016
Straits Trading Building	560 million	Mayapada Group	Sun Venture Group	2016
78 Shenton Way	301.5 million	Alpha Investment Partners	Commercial Real	2016
AXA Tower	1.18 billion	Perennial Real Estate	BlackRock	2015
CPF Building	550 million	Ascendas Land		2015
Central Mall (Office Tower) 7 & 9 Tampines Grande Manulife Centre	218.0 million 366.0 million 487.5 million	Alpha Investment Partners City Developments Limited		2015

Source: Colliers International, Jones Lang LaSalle, public information

## Office market– Investment

The office investment market continues to attract investors looking for mid to long-term gains.

### Major Recent Investment in Office Market

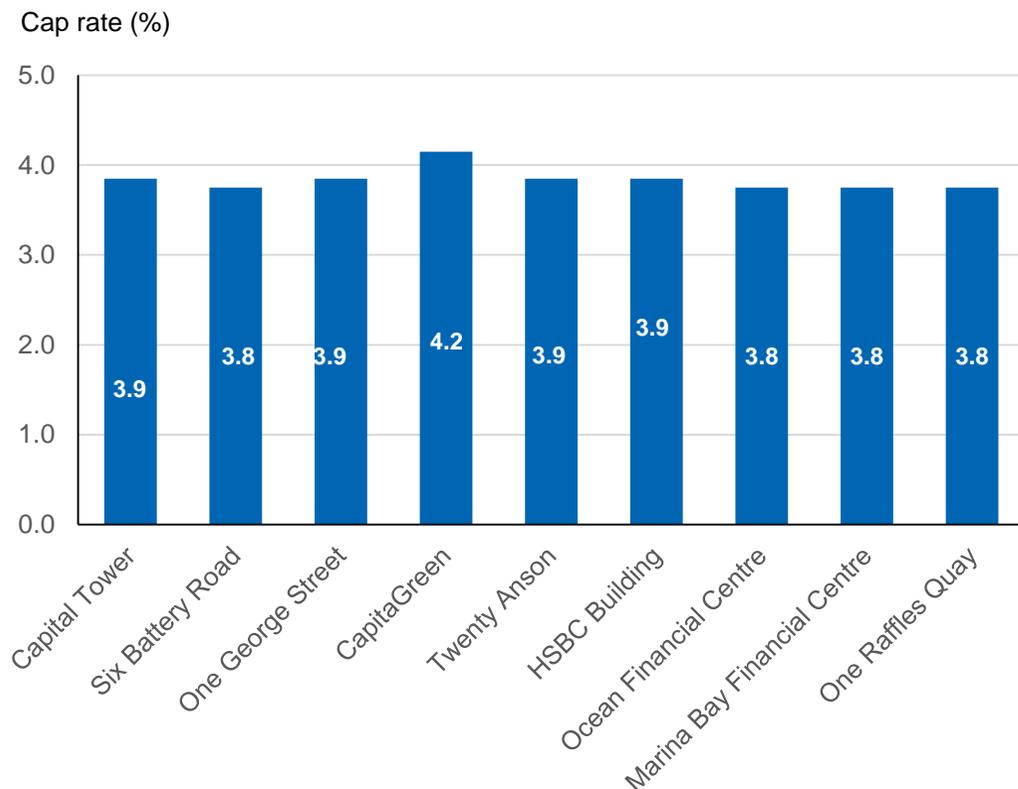
Property	GFA (m <sup>2</sup> )	Transaction Amount (SGD)	Buyer	Seller	Transaction Year
Asia Square Tower 1	246,476	3.38 billion	Qatar Investment Authority	BlackRock	2016
CapitaGreen (60% stake)	82,003	960.30 million	CapitaLand Commercial Trust		2016
Straits Trading Building	18,565	560 million	Mayapada Group	Sun Venture Group	2016
78 Shenton Way	33,000	301.5 million	Alpha Investment Partners	Commercial Real	2016
AXA Tower	95,690	1.18 billion	Perennial Real Estate	BlackRock	2015
CPF Building	55,742	550 million	Ascendas Land		2015
Central Mall (Office Tower)	12,206	218.0 million	Alpha Investment Partners		2015
7 & 9 Tampines Grande	26,687	366.0 million	City Developments Limited		
Manulife Centre	22,441	487.5 million			

Source: Colliers International, Jones Lang LaSalle, public information

## Office market- Cap rate

The cap rate of offices in the CBD area in 2015 is around 3.8% on average

Capitalization Rate of Office in CBD



Source: CapitalLand Commercial Trust 2015 annual report, Keppel REIT 2015 annual report

Office REIT in Singapore

REIT	Asset Type	Investment Properties
Capitaland Commercial Trust	<ul style="list-style-type: none"> <li>Office (68%)</li> <li>Retail (19%)</li> <li>Hotel and Convention Centre (13%)</li> </ul> *By gross rental income	<ul style="list-style-type: none"> <li>Capital Tower</li> <li>Six Battery Road</li> <li>One George Street</li> <li>Raffles City Tower</li> <li>CapitaGreen</li> <li>Twenty Anson</li> <li>HSBC Building</li> </ul>
Keppel REIT	<ul style="list-style-type: none"> <li>Office</li> </ul>	<ul style="list-style-type: none"> <li>Ocean Financial Centre</li> <li>Marina Bay Financial Centre</li> <li>One Raffles Quay</li> <li>Bugis Junction Towers</li> </ul>

- Capitaland Commercial Trust, Keppel REIT, Frasers Commercial Trust, Suntec REIT, and OUE Commercial REIT are the major office REITs in Singapore

## Singapore

Wider domains keep favorable, but residential and commerce show signs to weaken.

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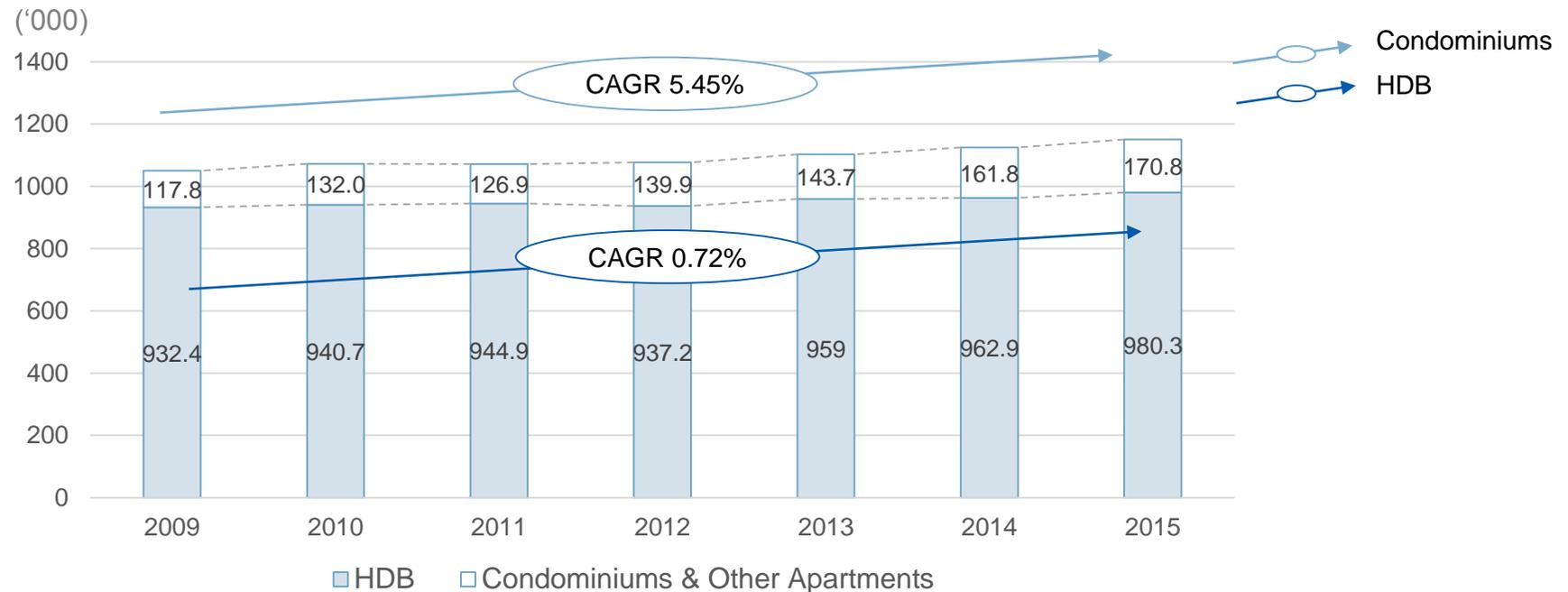
7 Real Estate Investment Products

## Residential market –Number of households by type of dwelling

**More households have stayed in condominiums and other apartments over the years while the percentage of households living in HDB flats has slowly gone down in the last 5 years.**

- CAGR of condominiums market is much higher than that of HDB
- Foreigners cannot purchase HDBs according to the Residential Property Act imposing restrictions on foreigners in 1973.

*Number of Households by Type of Dwelling in Singapore*



HDB...Housing & Development Board, public housing in Singapore

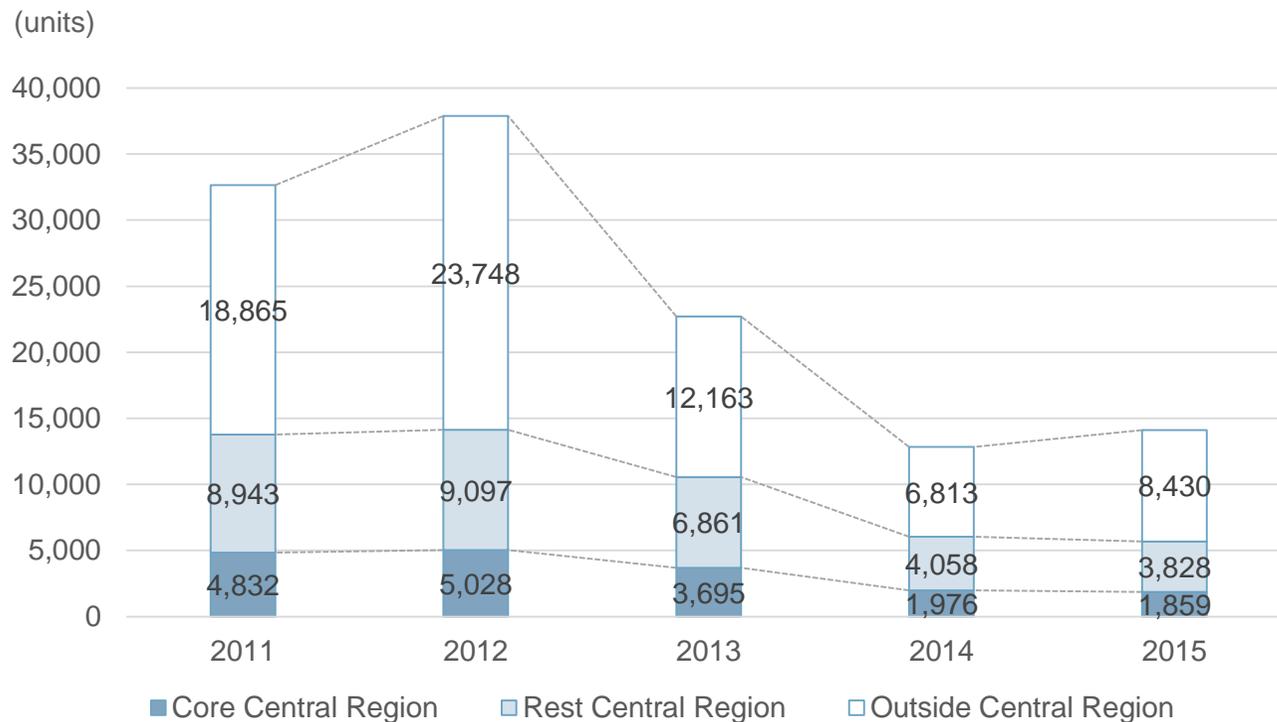
Source: NRI based on data from Singapore Statistics

## Residential market –Demand Trend Analysis

# Dramatically dropped the demand for Private Residential Units since 2013 due to property cooling measures

- Around 50% of transactions for units outside the Central Region dropped from 2012 to 2014.
- Several property cooling measures such as introducing 60% cap (formerly 80%) on the Total Debt Serving Ratio (DSR) and 30% cap on the Mortgage Servicing Ratio(MSR) in 2013 badly affected the number of sales transactions.

*Number of Sales Transactions for Private Residential Units by area*



Source: NRI based on URA

## Residential market –Demand Trend Analysis

The drastic drop of transactions of Private Residential is due to strict restrictions on investment for Private Residential in 2013 in addition to introduction of a more stringent cap on DSR and MSR.

- Minimum Cash Down Payment is getting higher from 10% to 25% when you purchase the 2<sup>nd</sup> and subsequent residential property.
- Foreigners have an obligation to pay 15% ABSD of the sales price of residential.

### *Change of Governmental Restrictions on Investment for Private Residential in 2013*

	1st Housing	2nd Housing	3rd Housing
LTV Limit*	80% or 60%*	60% or 40%* ⇒50% or 30%*	60% or 40%* ⇒40% or 20%*
Minimum Cash Down Payment	5% (for LTV of 80%) 10% (for LTV of 60%)	10%⇒25%	10%⇒25%
BSD	1% on first \$180,000 2% on next \$180,000 3% for the remainder		
ABSD (Singapore Citizens)	Not applicable	Not applicable ⇒7%	3%⇒10%
ABSD (Foreigners)	10%⇒15%		

LTV.. Loan to Value

BSD...Buyer's Stamp Duty

ABSD...Additional Buyer's Stamp Duty

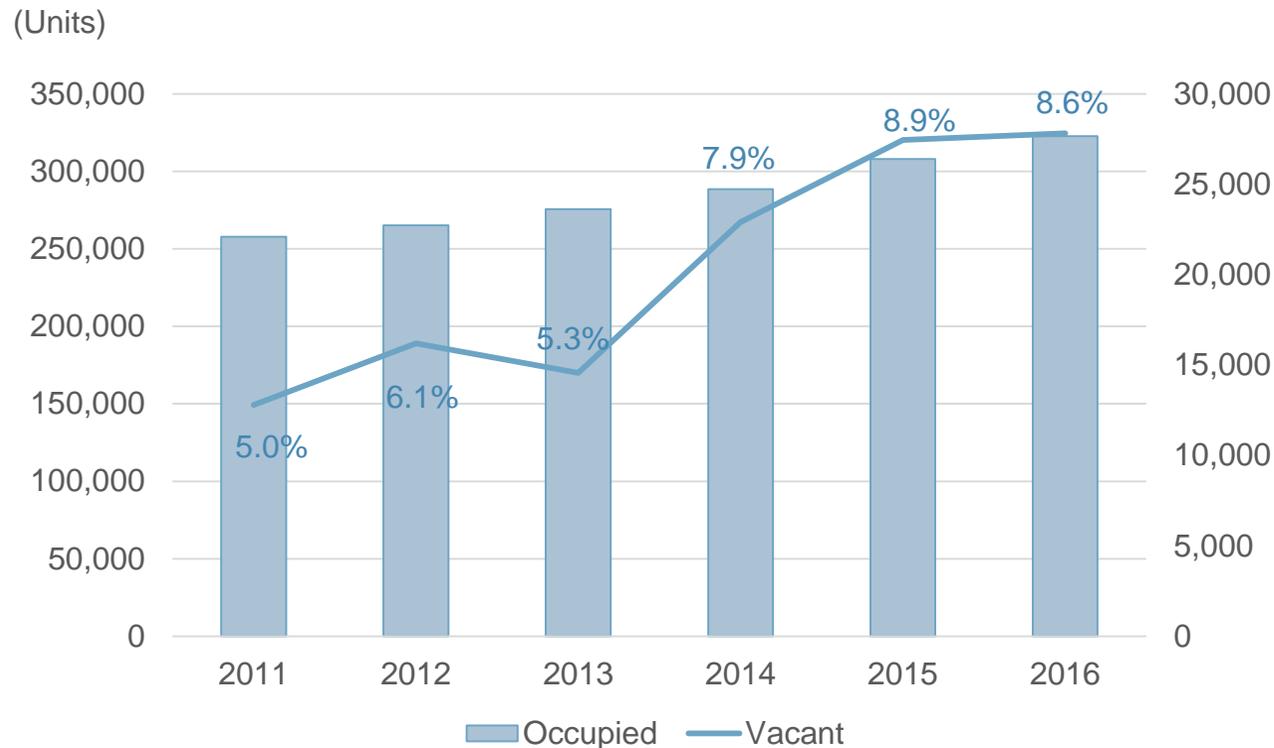
\*If the loan tenure is more than 30 years or extends past age 65

## Residential market–Stock and Vacancy Rate

**From 2013 to 2014, the vacancy rate got dramatically high compared to the change from 2011 to 2013.**

- From 2013 to 2014, the vacancy rate got dramatically high compared to the change from 2011 to 2013.

*Current Stock and Vacancy of Private Residential Units (Including Executive Condominiums)*



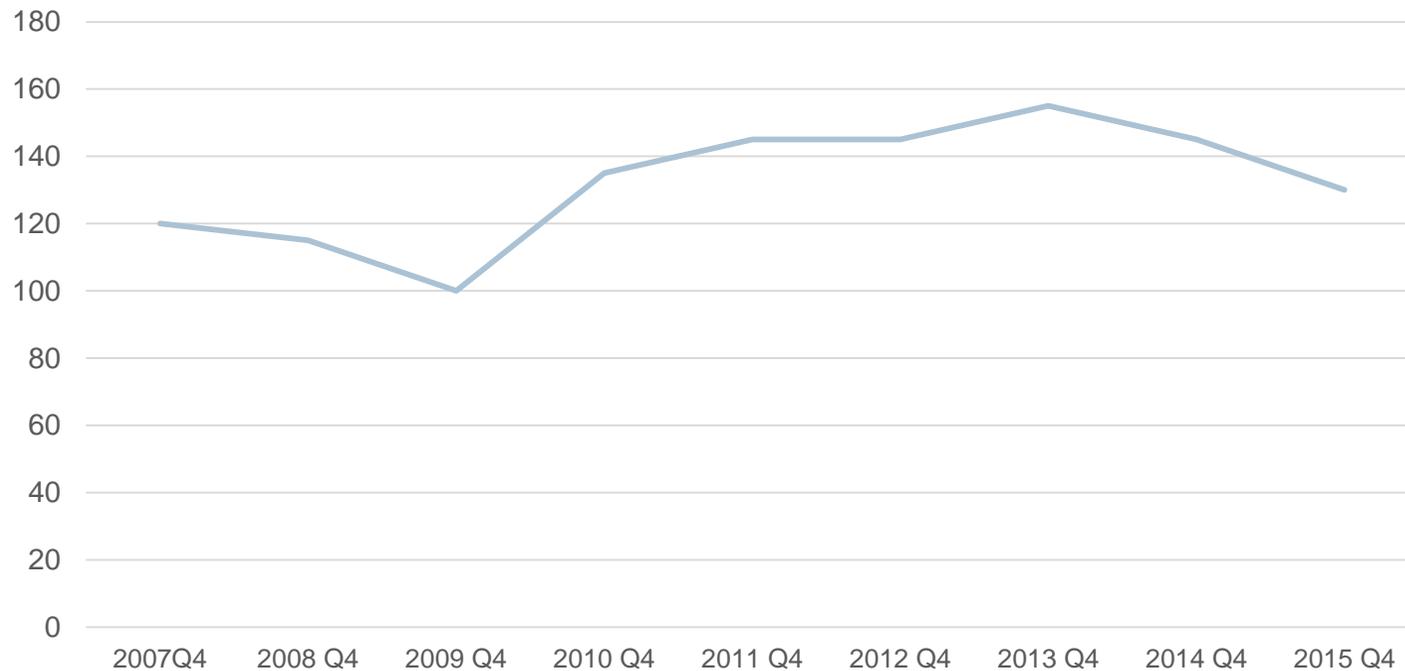
Source: NRI based on data from URA

## Residential market- Sales and Rental Index of Non-Landed property

**The Sales Price Index has gradually dropped in 2013 due to a higher vacancy rate over the years.**

---

*Sales Index of Private Residential*



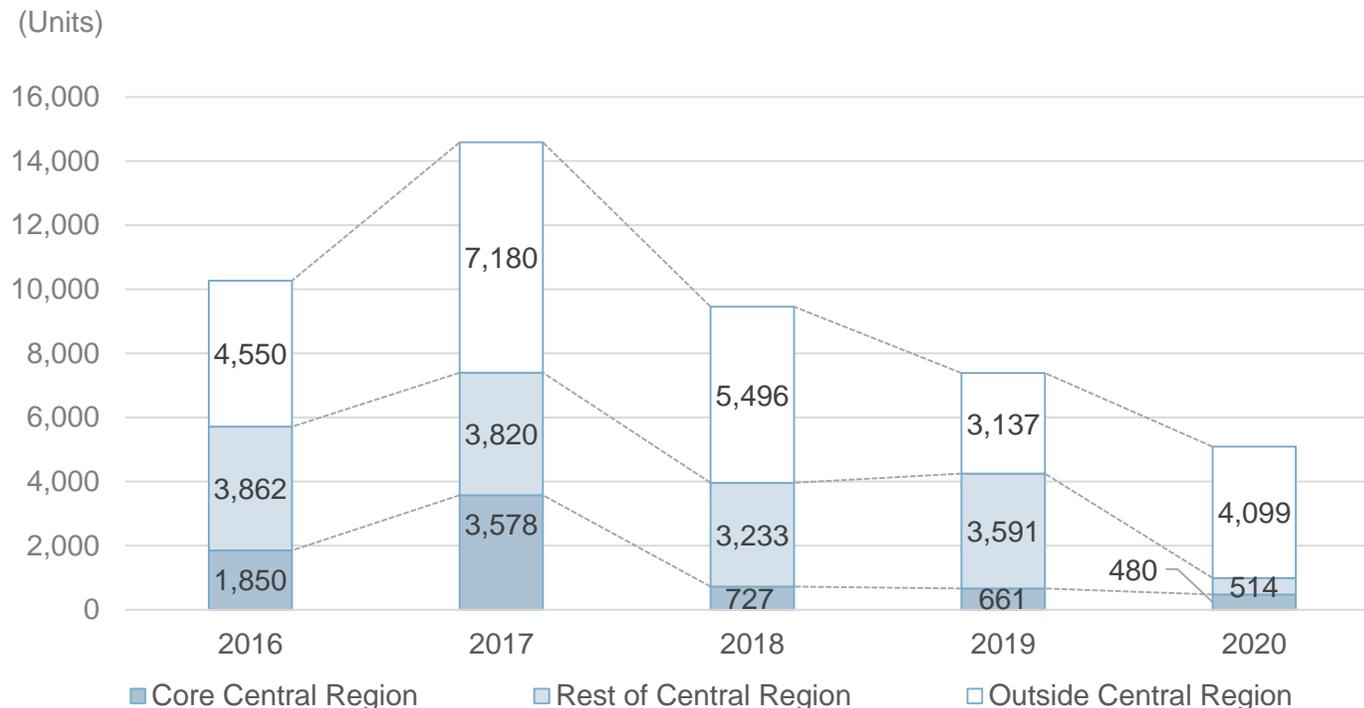
Source: NRI based on data from URA

## Residential market -Future Supply

**The supply for Outside Central Region is expected to be the largest for the next 5 years.**

- The rise in Private Residential units can be seen in the next years.
- The number of new Private Residential units seems to decrease in the Core Central Region

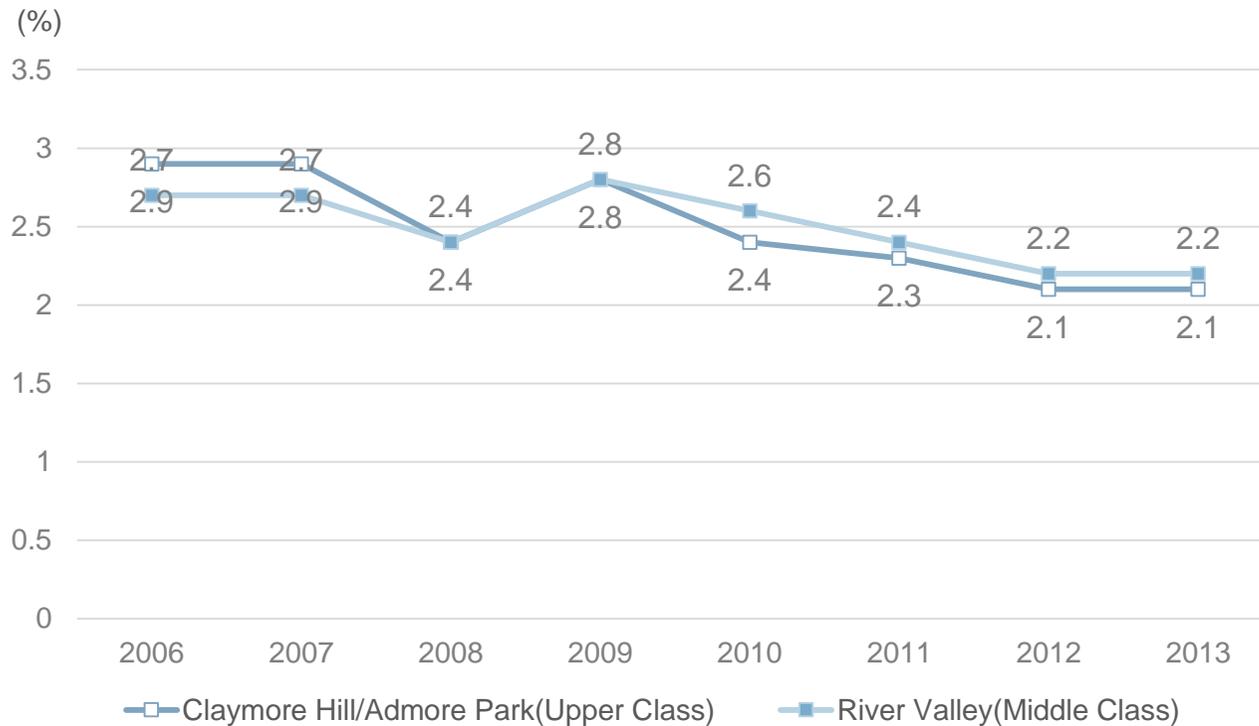
### *Supply in the Pipeline of Private Residential Units*



Source: NRI based on data from URA

# The capitalization rate has been dropping due to the higher vacancy rate

*Capitalization Rate for Upper Class and Middle Class*



Source : NRI based on data from Japan Association of Real Estate Appraisers

## Singapore

Wider domains keep favorable, but residential and commerce show signs to weaken.

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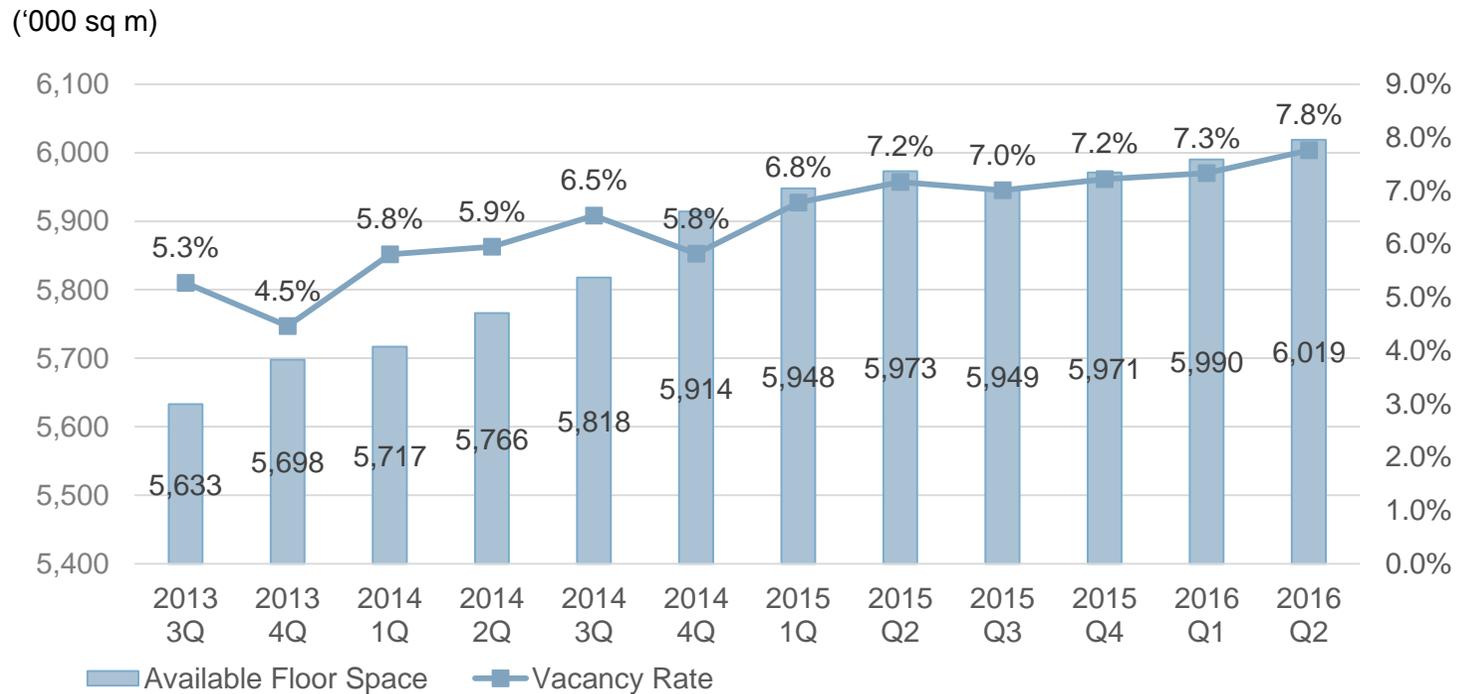
7

Real Estate Investment Products

## Retail market–Availability of Floor Space and Vacancy Rate

The Vacancy Rate is getting higher, which has caused a gradual increase of the availability of floor space since Q1 of 2015

*Availability of Floor Space and Vacancy Rate of Retail*



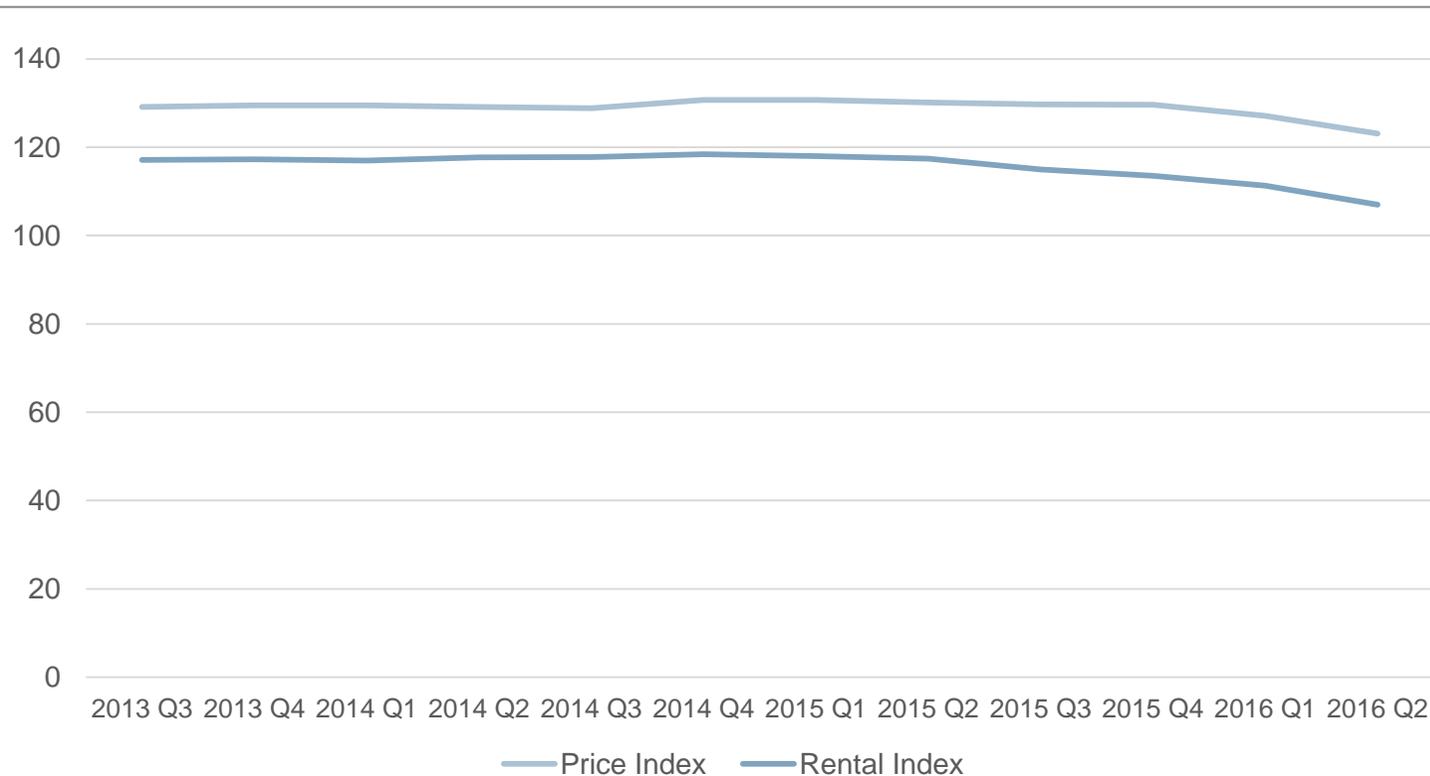
Source: NRI based on data from URA

## Retail market– Price and Rental Index of Retail Space

**The Price and Rental Index of Retail Space is going down, affected by the higher vacancy rate in every quarter in 2015.**

- Those prices were stable until 2014, but due to the slowdown of demand for retail space, the vacancy rate is increasing and affects both of these indexes.

*Price and Rental Index of Retail Space in Central Region*



Source: NRI based on data from URA

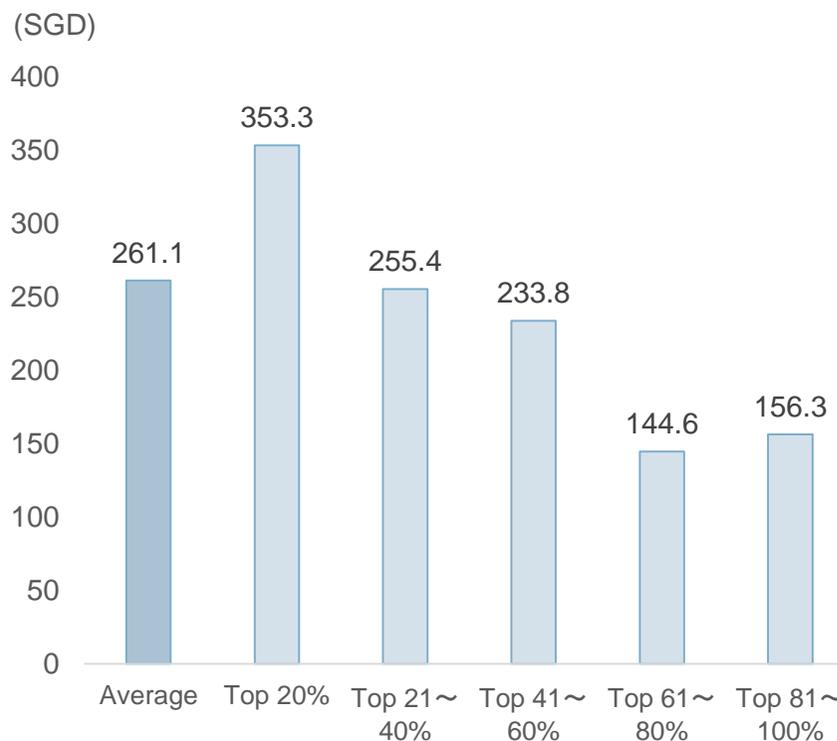
## Retail market- e-Commerce in Singapore

**Consumers who previously shopped at brick-and-mortar stores now prefer to shift to online shopping retailers, which has caused a lower demand for physical shopping spaces.**

- Thanks to internet accessibility, the high penetration of mobile devices and strong governmental support for online retailers in Singapore shopping online has attracted shoppers instead of going all the way to malls.

*E-Commerce market size in SEA and monthly average amount of online shopping in Singapore by Income group*

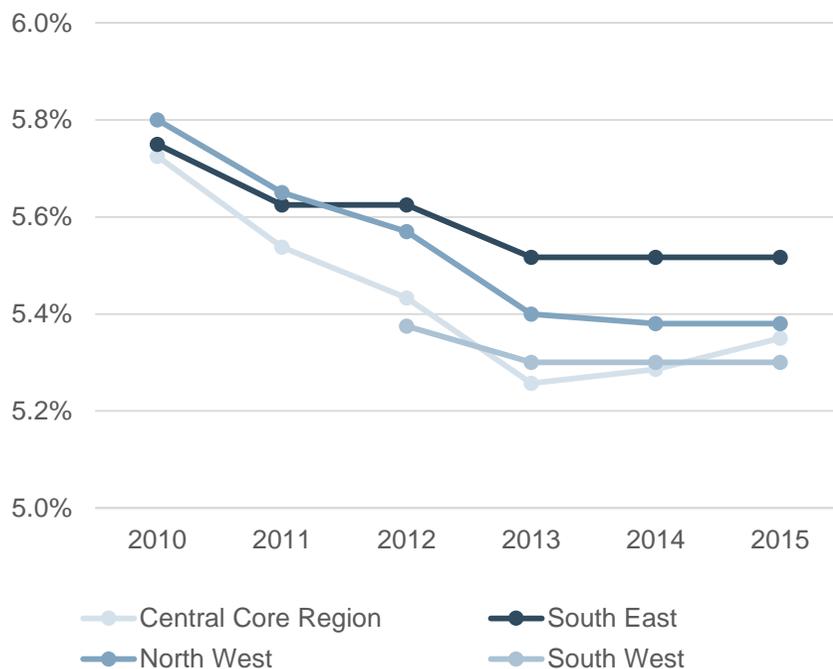
	2015		2025 (Estimate)	
	Retail Sales (bn,USD)	EC Sales out of Retail	Retail Sales (bn,USD)	EC Sales out of Retail
<b>Singapore</b>	48	2.1%	81	6.7%
Malaysia	91	1.1%	152	5.4%
Thailand	113	0.8%	202	5.5%
Vietnam	67	0.6%	160	4.7%
Philippines	100	0.5%	206	4.7%
Indonesia	238	0.6%	575	8.0%



## Retail market–CAP Rate

The Southeast Region has the highest Cap Rate according to the CAP Rate of the main malls in Singapore.

*Retail Capitalization Rate by Core Central Region and Other Regions*



### List of Malls Used for Capitalization Rate Calculation

#### Central Core Region

Junction 8, Atrium, Bugis+, Clarke Quay, Paragon, Wisma Atria, Ngee Ann City, Bugis Junction, Plaza Singapura

#### South East

Tampines Mall, Bedok Point, Changi City Point

#### North West

Bukit Panjang Plaza, Causeway Point, Northpoint, Lot One Shopper's Mall, Yew Tee Point

#### South West

Jcube, Clementi Mall

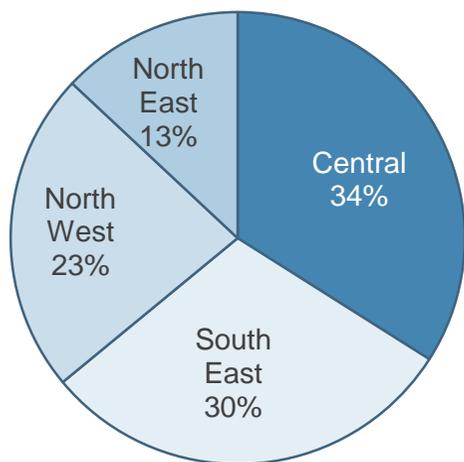
\*Data for 2010 and 2011 are not available because Jcube and Clementi Malls were opened in 2011 and 2012 respectively.

## Retail market- Future Supply

**A new retail supply will be in the suburbs, especially the Outside Central Region, and a large proportion of OCR retail will be in the East**

- This is in line with the government’s strategy of “Work-Live-Play,” solutions decentralizing working and living functions to the Outside Central Region

*Proportion of Future Retail Supply by locations in 2016-2018 and the 5 largest pipelines in Singapore*



(% Based on the sq m)

Project name and location	Area	Name of Developer	Gross Floor Area	Expected year of final TOP
Hotel/retail development at Airport Boulevard	South East	Changi Airport Group (S) Pte Ltd	90,000 sq m	n.a.
Northpoint City at Yishun Central 1	North West	North Gem Development Pte Ltd/FC North Gem Trustee Pte Ltd	39,050 sq m	2018
Additions/alterations and extension to existing Singapore Post Centre at Eunus Road 8	South East	Singapore Post Limited	25,000 sq m	n.a.
Hillion Mall at Jelebu Road	North West	Sim Lian JV (BP Retail) Pte Ltd/Sim Lian JV (BP) Pte Ltd	20,490 sq m	n.a.
Office/retail development for Changi Airport Terminal 4 at Airport Boulevard	South East	Changi Airport Group (S) Pte Ltd	19,710 sq m	n.a.

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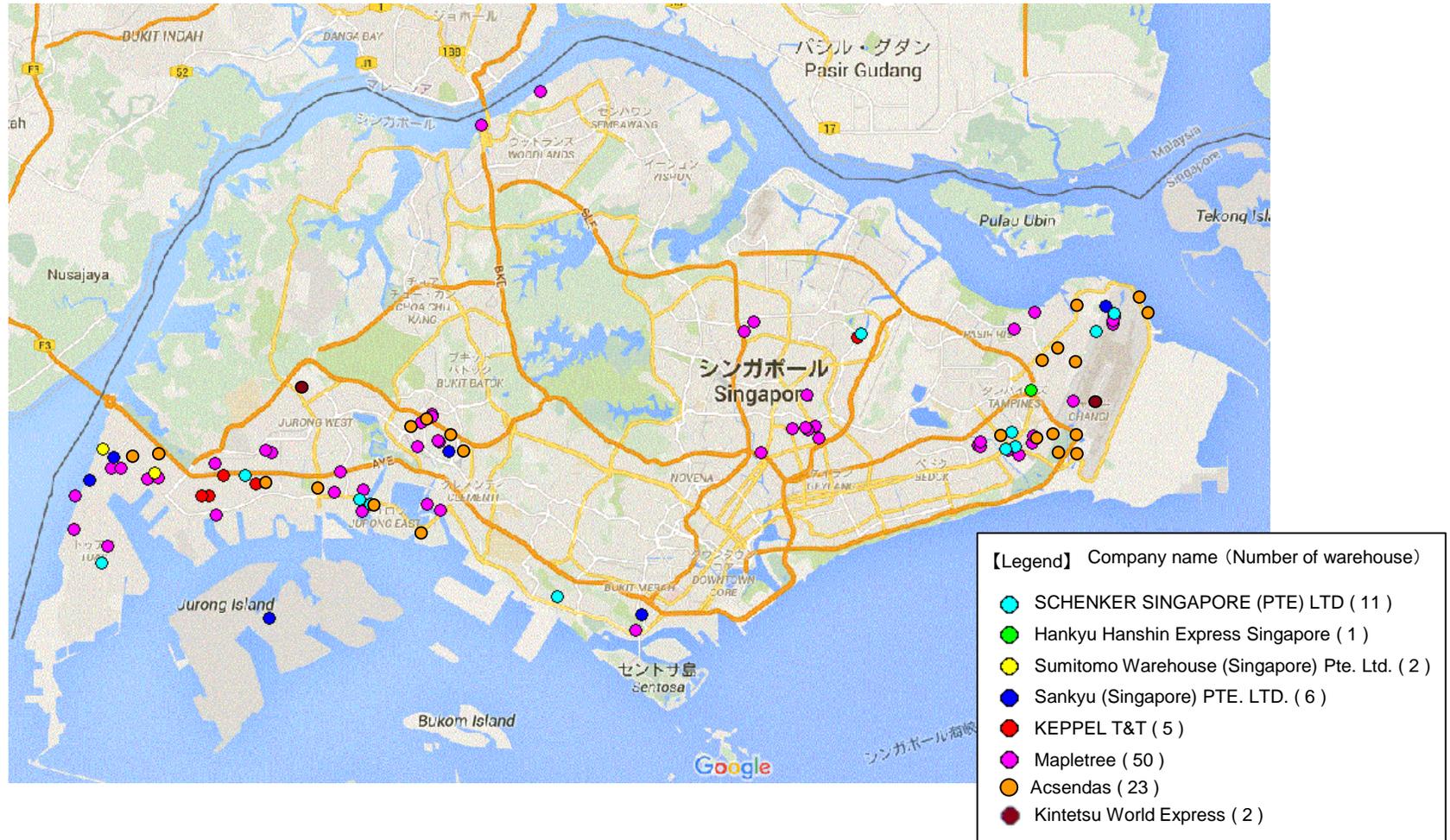
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Hotel Market

7

Real Estate Investment Products

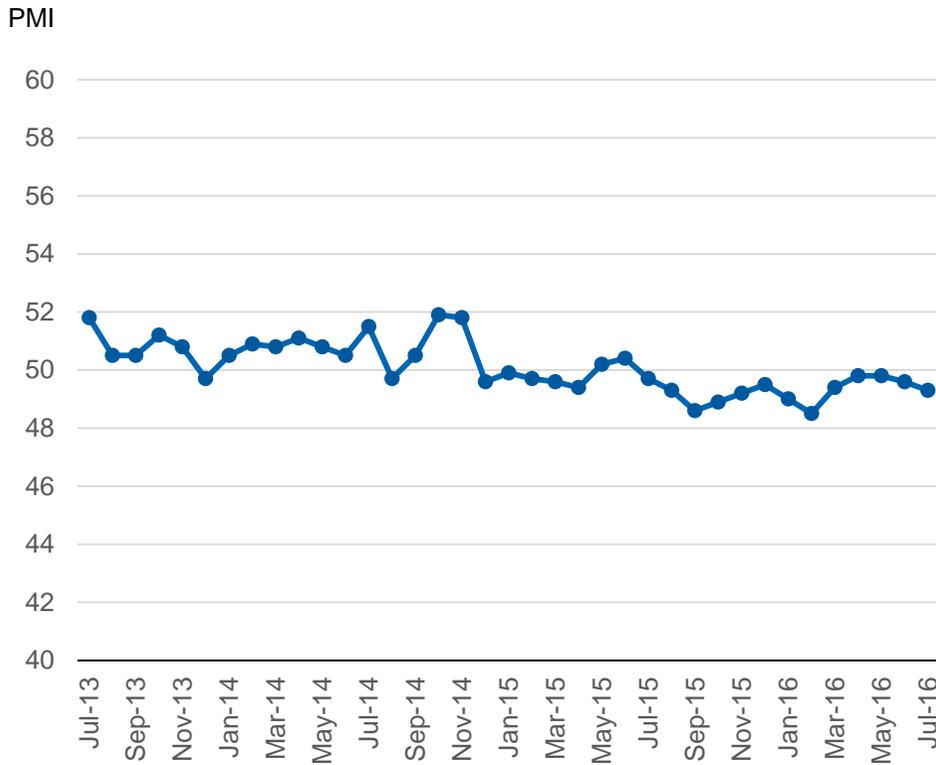
# Most of the warehouse space is located in the eastern and western part of Singapore



## Logistics Space– Demand Trend

**Manufacturing activities have been contracted for the past 13 months, since June 2015. The industrial space market is expected to remain challenging.**

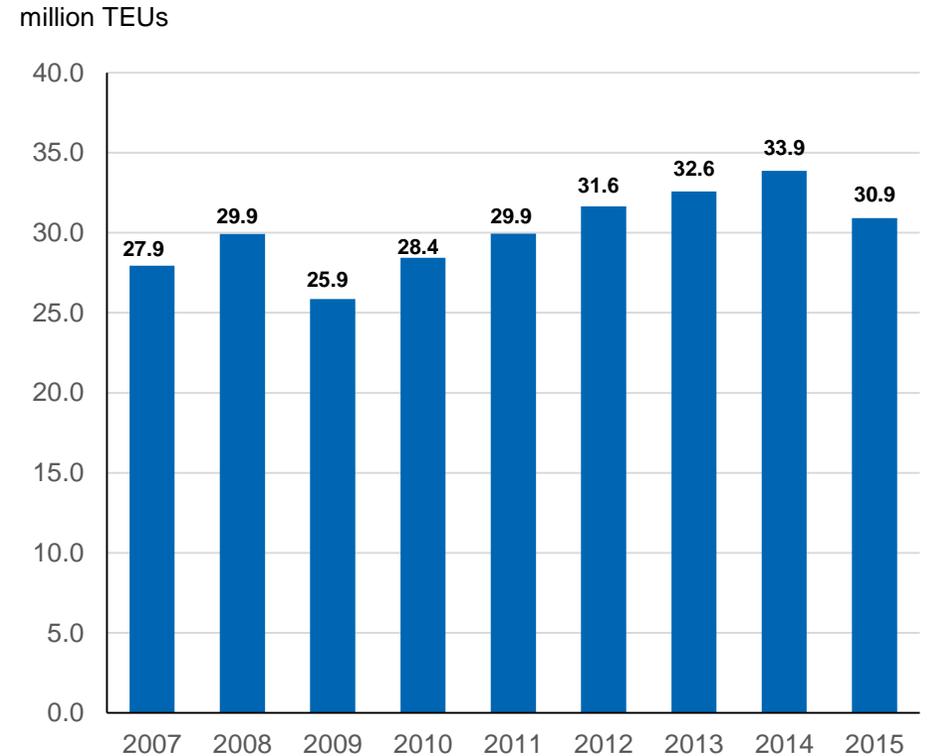
*Singapore Purchasing Managers' Index (PMI)*



Note: Singapore PMI measures the performance of the manufacturing sector and is derived from a survey of 400 industrial companies.

Source: Singapore Institute of Purchasing & Materials Management (SIPMM)

*Container Traffic of Singapore Port*

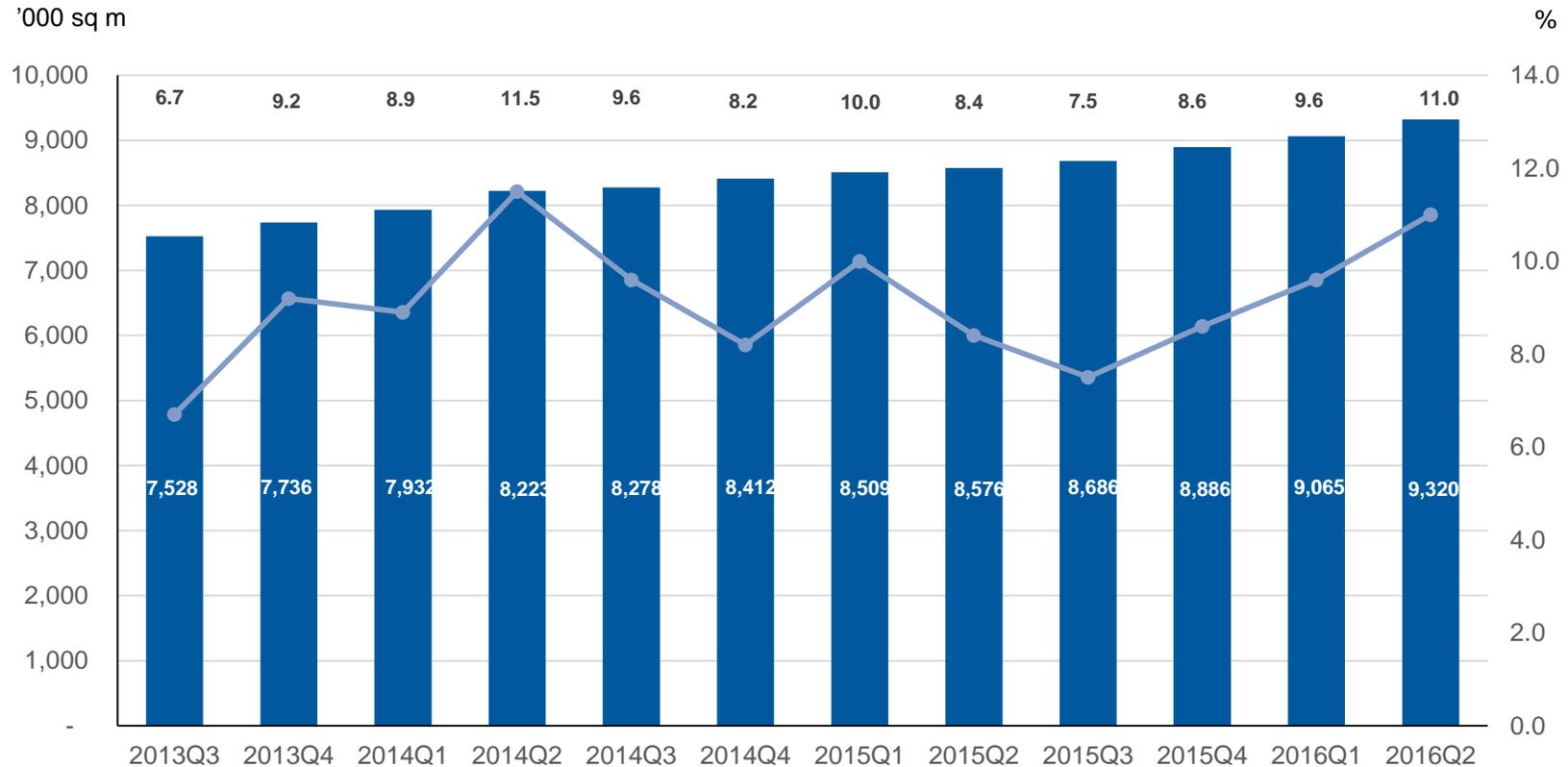


Source: Maritime and Port Authority of Singapore

## Logistics Space– Stock and Vacancy

**Warehouse stock has been growing steadily for the past four quarters. The vacancy rate has been growing at a faster rate due to oversupply and a slowing global economy.**

*Warehouse Stock & Vacancy Rate in Singapore*

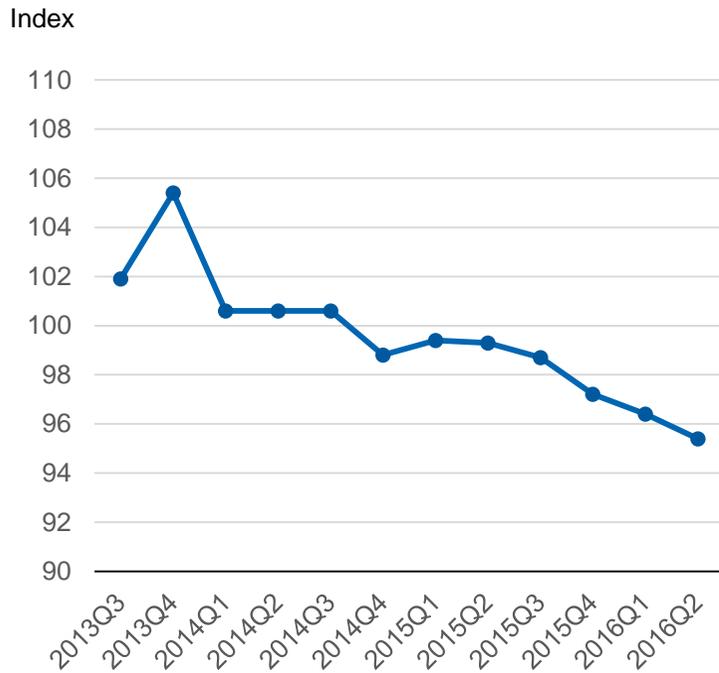


Source: JTC Corporation

## Logistics Space- Rental Index

**Warehouse rentals have been on a downward trend in recent years. However, rentals in the West area are still on the rise.**

Rental Index of Warehouse in Singapore



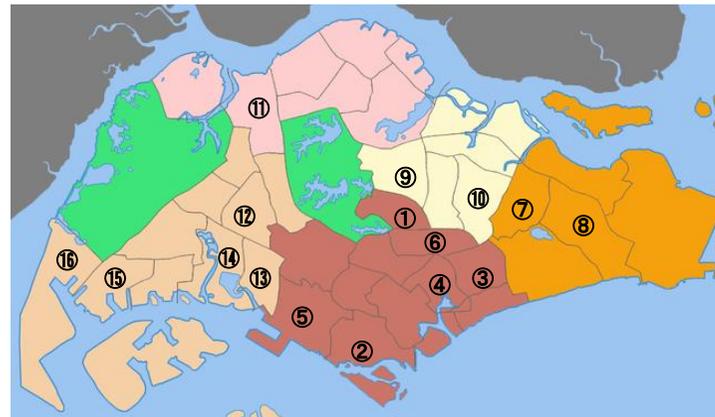
Note:

- 1) Before 4th Quarter 2014, the rental index was computed based on transactions in the Central region. From 4th Quarter 2014, the scope of the rental index has expanded to include transactions outside the Central region. From 4th Quarter 2014 and 1st Quarter 2016, the weights used have been fixed, using 2012 and 2015 transaction values respectively.

Warehouse Rental by Planning Areas

Region	No Location	Median rental in 2016 (S\$ psm pm)	CAGR (2014-2016)
Central	1 Bishan	18.8	-0.5%
	2 Bukit Merah	26.7	9.1%
	3 Geylang	22.1	-0.3%
	4 Kallang	19.8	-4.6%
	5 Queenstown	26.1	16.0%
	6 Toa Payoh	14.0	-13.6%
East	7 Paya Lebar	20.5	-4.3%
	8 Tampines	19.5	15.1%
Northeast	9 Ang Mo Kio	17.9	-5.0%
	10 Hougang	16.9	-1.1%
Northwest	11 Kranji	12.5	-4.4%
West	12 Bukit Batok	12.2	-9.5%
	13 Clementi	20.0	10.2%
	14 Jurong East	20.9	11.1%
	15 Pioneer	31.1	7.5%
	16 Tuas	15.1	1.7%

- Driven by the Singapore government future plan in transforming Jurong into an innovation district and industrial park, the West area in Singapore will continue to capture interest from investors.



Note:

- 1) The median rental in a planning area is the average of median rental by street in that area.
- 2) Rental in 2016 is the average of rental in Q1 and Q2, 2016.

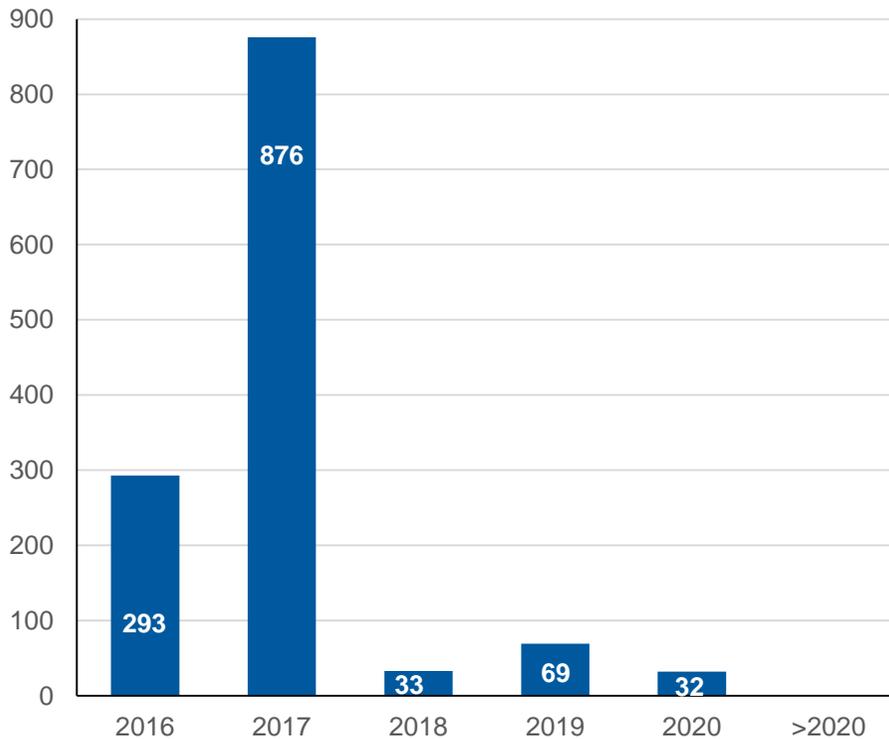
Source: NRI based on data from JTC Corporation, Property Guru

## Logistics Space– Future Supply

**There will be a total of 1.3 million sqm GFA of warehouse space expected to be completed by 2020 and a surge in supply in 2017**

### *Pipeline Supply of Warehouses in Singapore*

'000 sqm gross



Source: Urban Redevelopment Authority

- Most of the major warehouse developments are from end-users rather than developers and industrial REITs; thus, there will be a lower occupancy pressure on this new warehouse space.

Project Description	Name of Developer	GFA (sq m)	Expected year of completion
Warehouse development at Bulim Avenue	Supply Chain City	50,050	2016
Carros Centre	Kranji Development	108,360	2017
Warehouse development at Benoi Road	GKE Warehousing & Logistics	39,760	2017
Warehouse development at Pandan Road	Poh Tiong Choon Logistics	50,940	2017
Warehouse development at Pioneer Road	HSBC Institutional Trust Services	71,680	2017
Warehouse development at Pioneer Road	Toll Logistics	100,930	2017
Warehouse development at Tuas Avenue 4	AWAN Data Centre	32,610	2017

Source: JTC Corporation

## Singapore

Wider domains keep favorable, but residential and commerce show signs to weaken.

1

Macro Fundamentals

2

Office Market

3

Residential Market

4

Retail Property Market

5

Logistics Property Market

6

Hotel Market

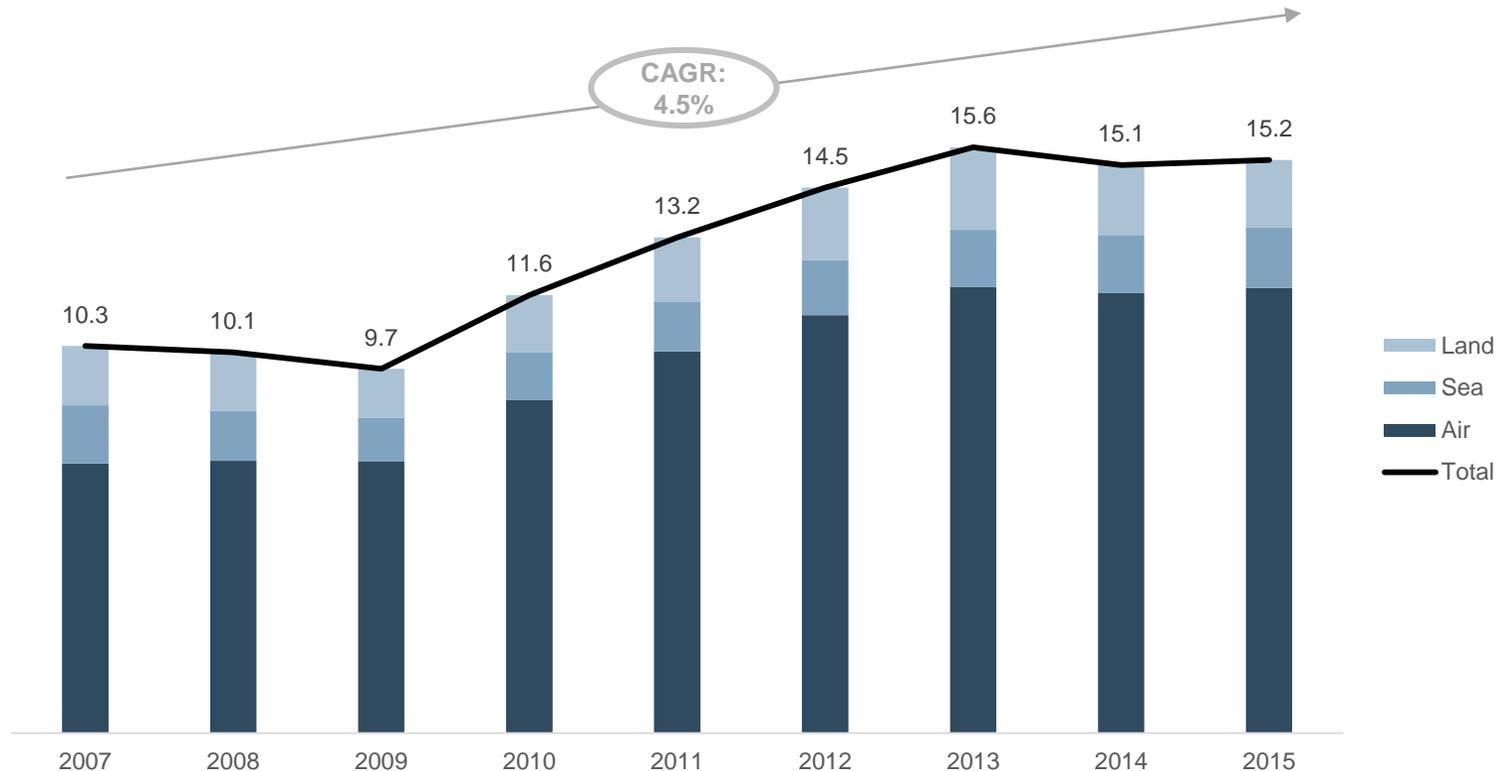
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Real Estate Investment Products

Visitor arrivals into Singapore have been increasing steadily since the 2008 global recession, with numbers reaching stable levels in recent years.

- The increase in visitors can be attributed to increasing flight capacities into Singapore, especially new direct connecting flights to secondary Chinese cities, as well as an increase in low-cost carriers (LCC) within the SEA region.

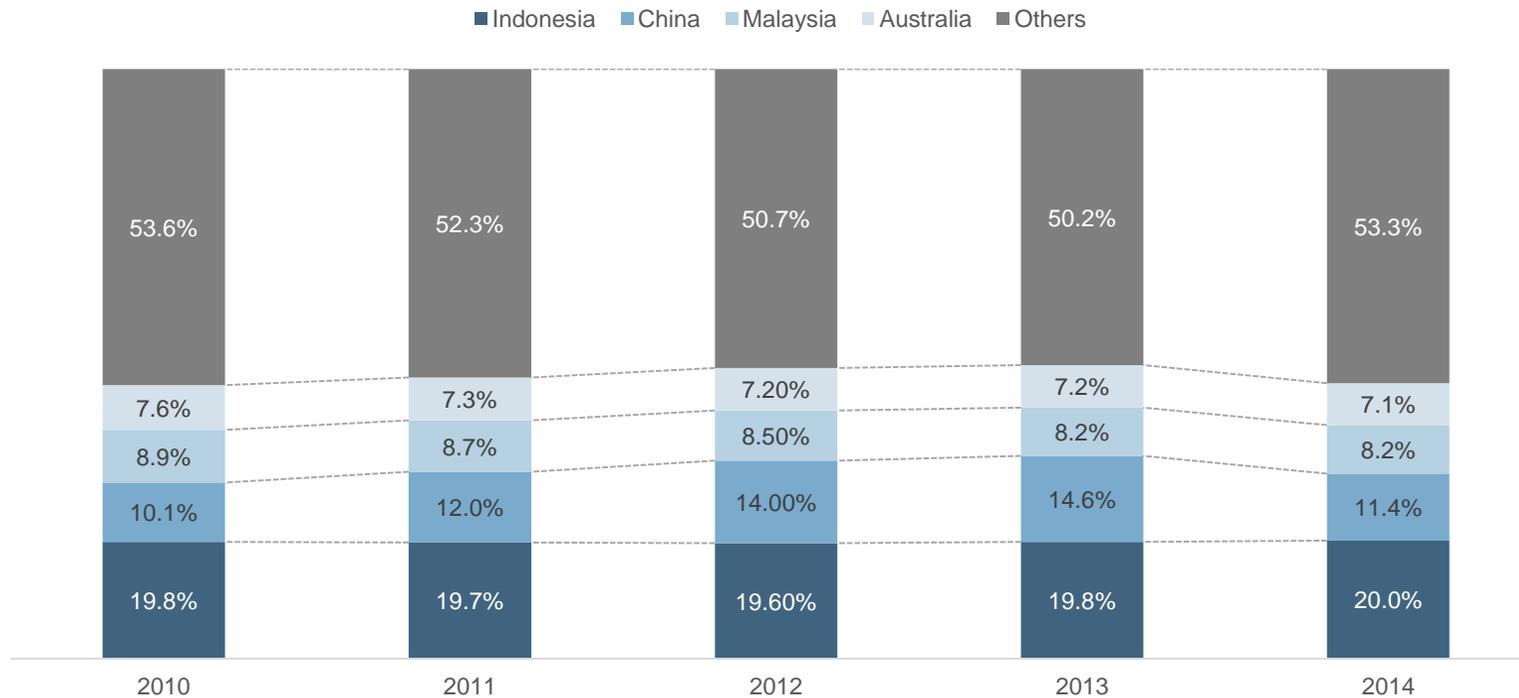
Visitor Arrival Numbers to Singapore (millions) (by mode of transport) (2007-2015)



## Indonesia, China, Malaysia & Australia constitute the top four largest countries for visitor numbers in Singapore.

- Visitors from China dipped slightly in 2014, due to concerns over air travel in Southeast Asia after the MH370 incident.

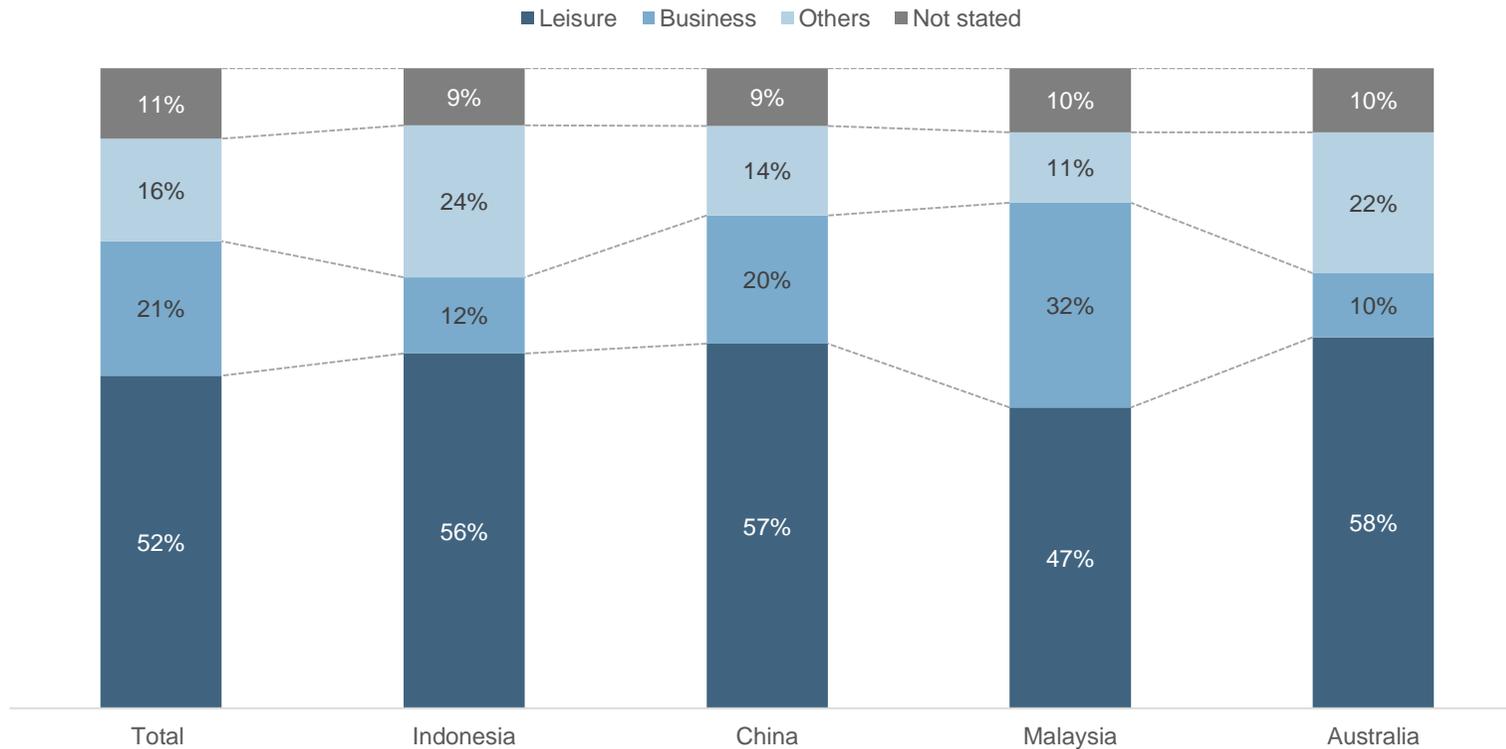
*Top visitors by nationalities, (%) 2010-2014*



Approximately half of the visitors in Singapore are in the country for leisure purposes, including those from the top 4 visitor countries.

- The high percentage of visitors coming to Singapore for leisure purposes suggests that initiatives to boost tourism in Singapore have been considerably successful in attracting visitors into the country.

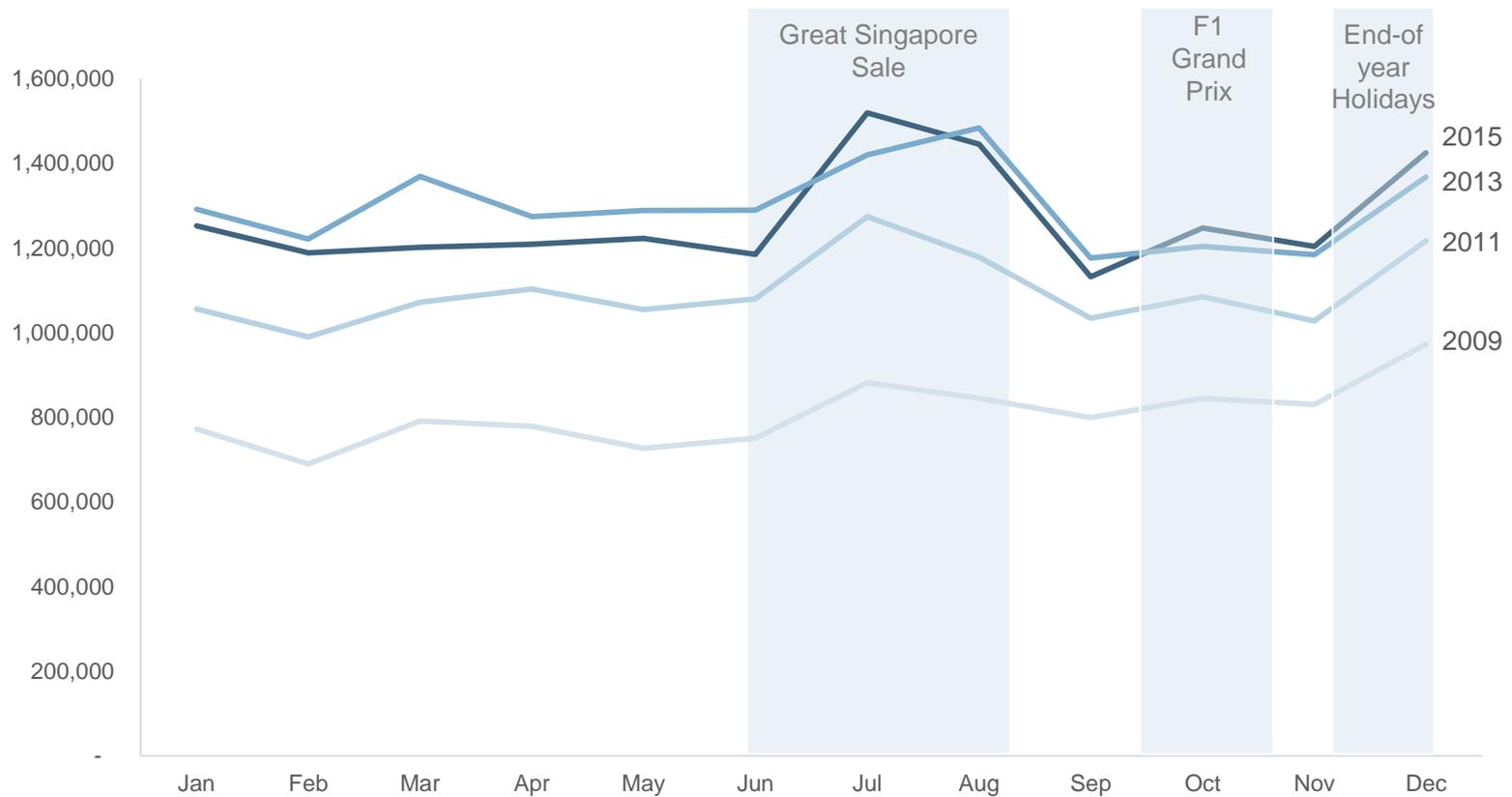
*Main Purpose of Visit (%), 2014*



Indeed, although visitor numbers are relatively stable throughout the year, they tend to peak during festive occasions or promotional periods.

- The peak from June to August can be attributed to the annual Great Singapore Sale, an event organized by the Singapore Tourism Board & Singapore Retailers Association to promote tourism in Singapore.

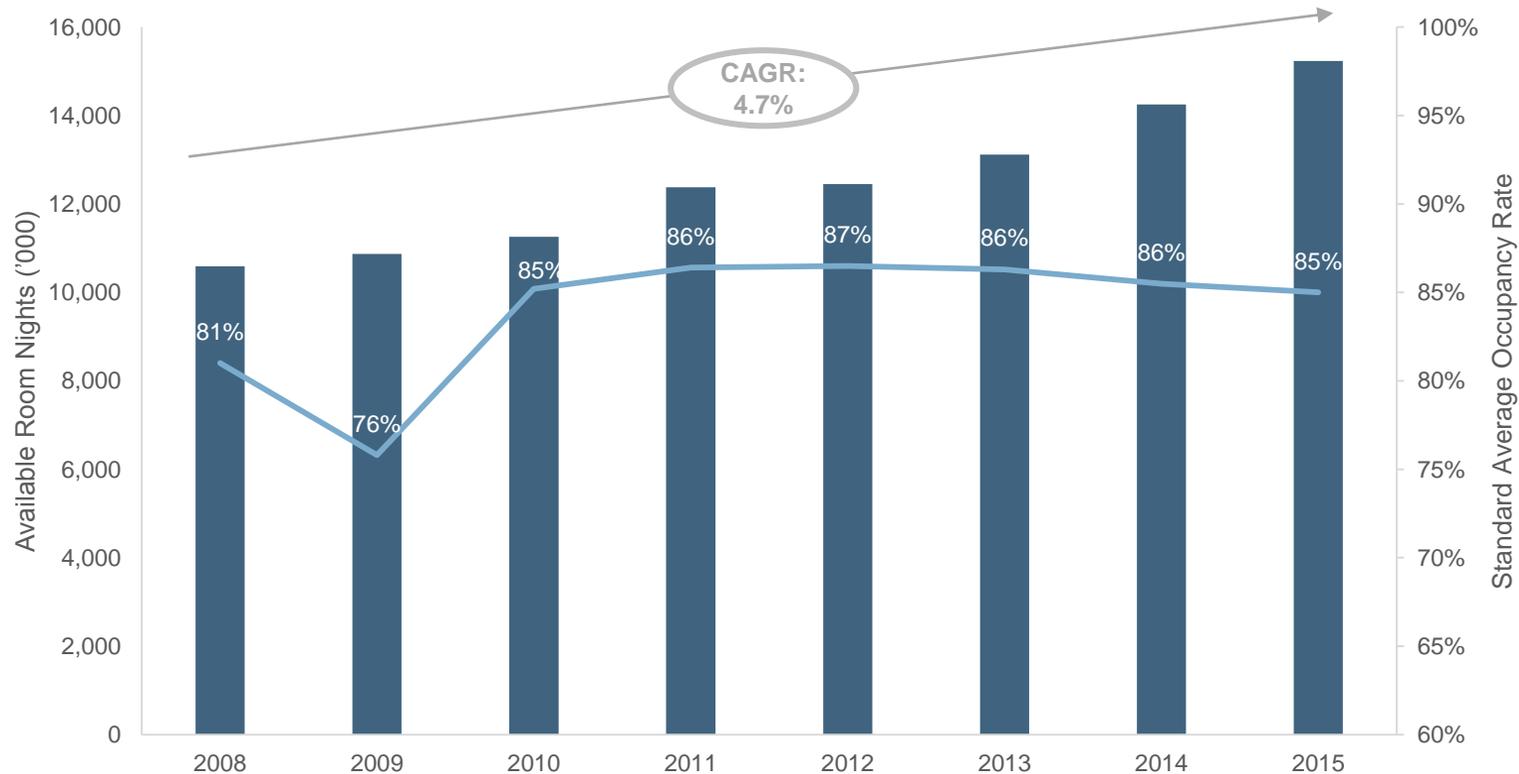
Visitor Arrival Numbers to Singapore



## While hotel room supply continues to increase each year, post-recession occupancy rates have also stabilized, staying close to 85% levels

- Recent significant additions to the hotel supply include Westin Singapore Marina Bay (2014), Sofitel So Singapore (2014), Holiday Inn Express (2014) & the Patina Hotel (2015).

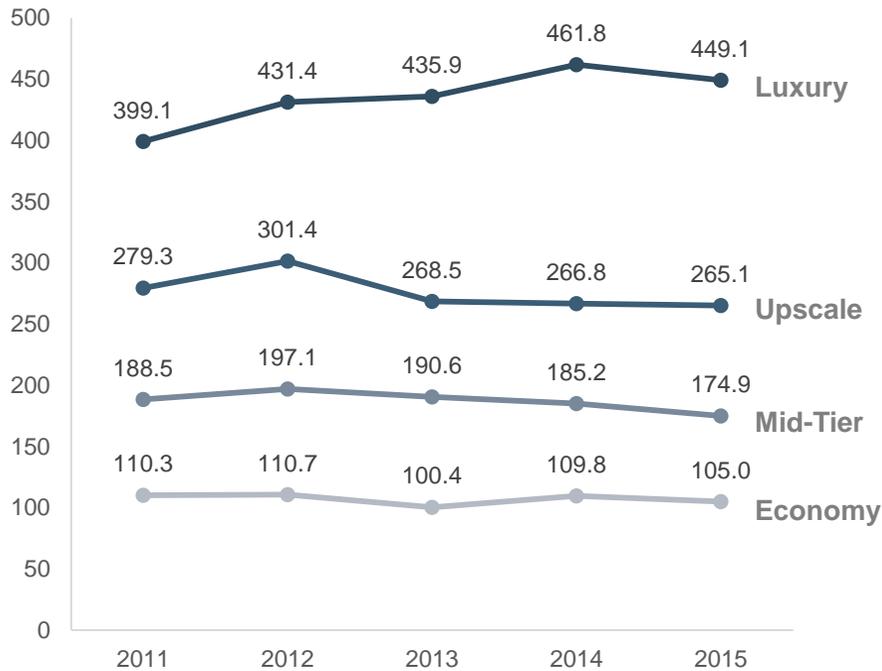
Available Room Nights & Occupancy Rate



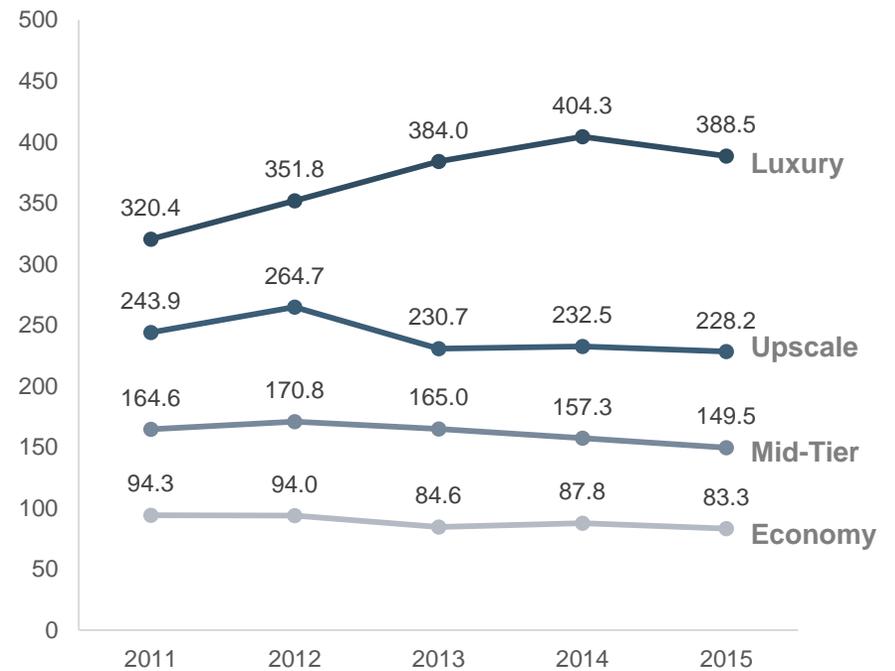
## With the exception of the luxury segment, all other room segments are witnessing declining room rates and RevPar

- This downward pressure on rates and revenues is expected to continue, as the influx of new hotel rooms will continue for the next few years.

Average Room Rates by Room Segment (\$\$)



Average Revenue per Available Room (RevPar) (\$\$) by Room Segment



**Luxury** - Includes hotels in the luxury segment and are predominantly in prime locations and/or in historical buildings

**Upscale** - Includes hotels in the upscale segment and are generally in prime locations or hotels with boutique positioning in a prime or distinctive location

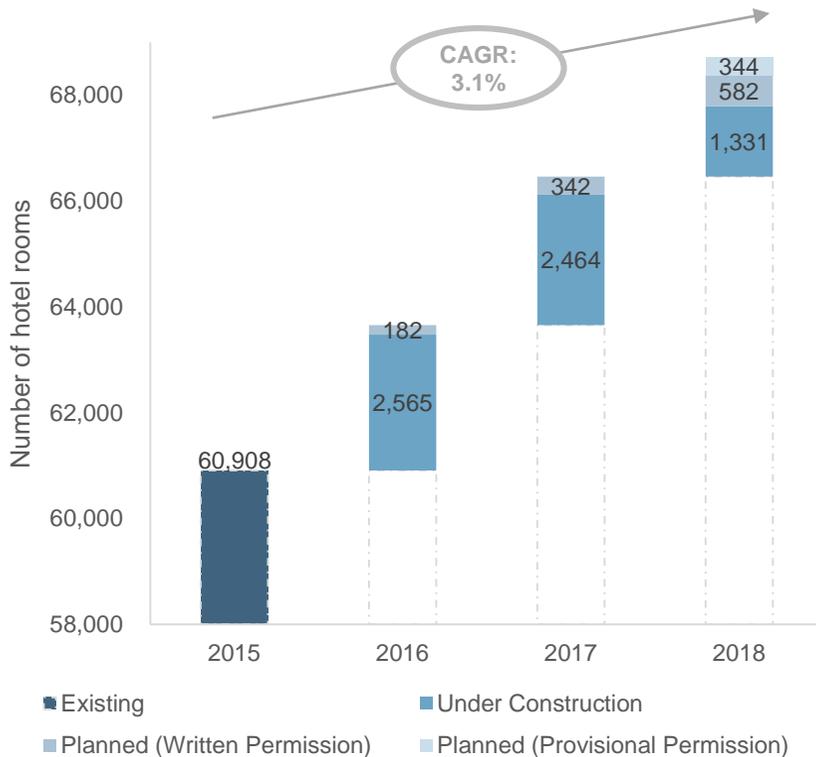
**Mid-Tier** - Includes hotels in the mid-tier segment and are primarily located in prime commercial zones or immediately outlying areas

**Economy** - Includes hotels in the budget segment and are generally located in outlying areas

The hotel industry in Singapore is bracing itself for a large supply influx of new rooms, with more than 7,000 rooms slated to be completed by the end of 2018.

- The influx of new rooms is the greatest since the completion of the two integrated resorts in Marina Bay Sands (MBS) & Resorts World Sentosa (RWS) in 2010 and 2011 respectively.

Number of Hotel Rooms in the Pipeline



Selected Key Future Hotel Developments (2016 – 2018)

Expected Completion Year	Hotel Name	No. of Rooms
2016	Park Hotel Farrer Park	300
2016	Oasia Downtown	314
2016	Holiday Inn Express Katong	451
2016	Intercontinental Singapore Robertson Quay	225
2017	Courtyard by Marriott Novena	250
2017	Andaz Hotel (Duo development)	340
2017	YOTEL	600
2018	The Outpost (Sentosa)	700

## Singapore

Wider domains keep favorable, but residential and commerce show signs to weaken.

1 Macro Fundamentals

2 Office Market

3 Residential Market

4 Retail Property Market

5 Logistics Property Market

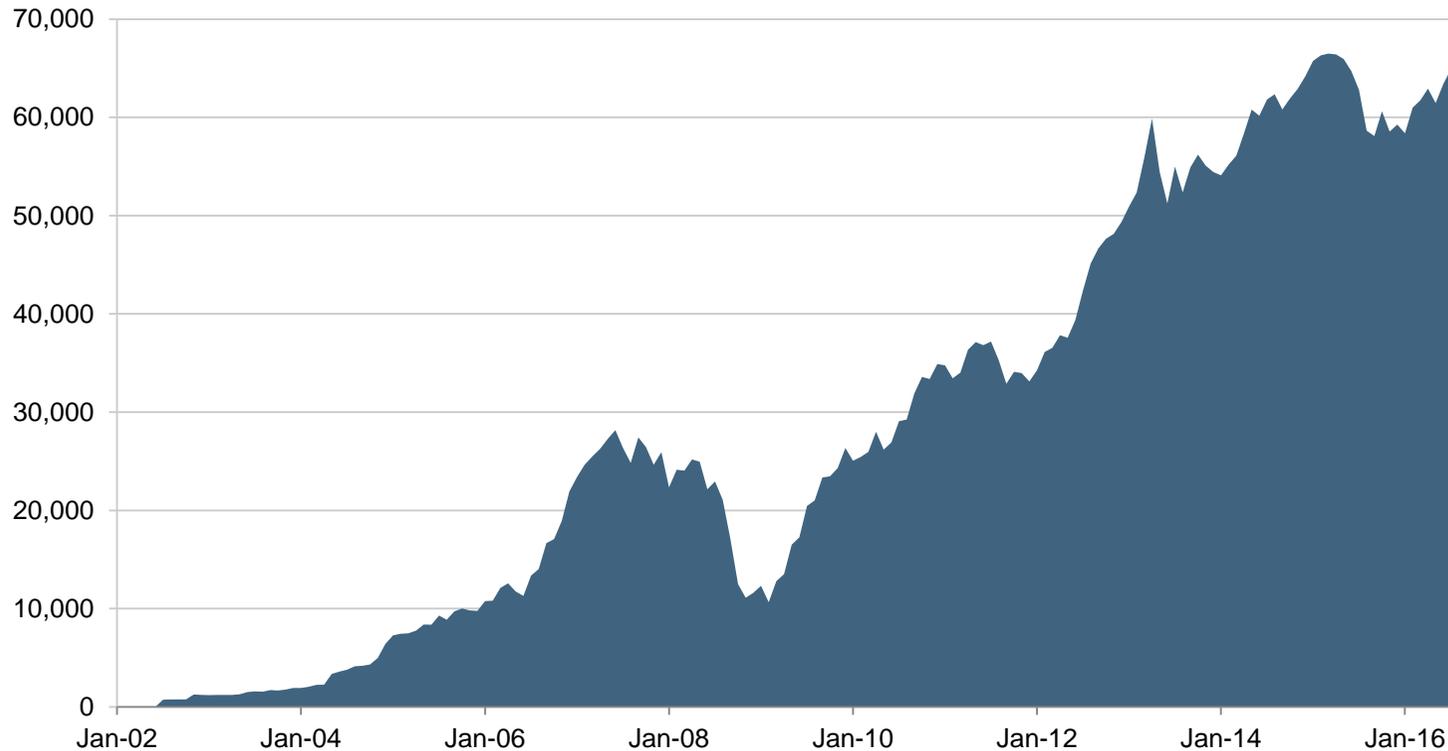
6 Hotel Market

7 Real Estate Investment Products

# S-REIT market capitalization recovered in 2009 and has now attained a scale of more than S\$66 billion.

■ There are 33 listed REITs as of the end of March 2016.

*S-REIT market capitalization (Million SGD)*

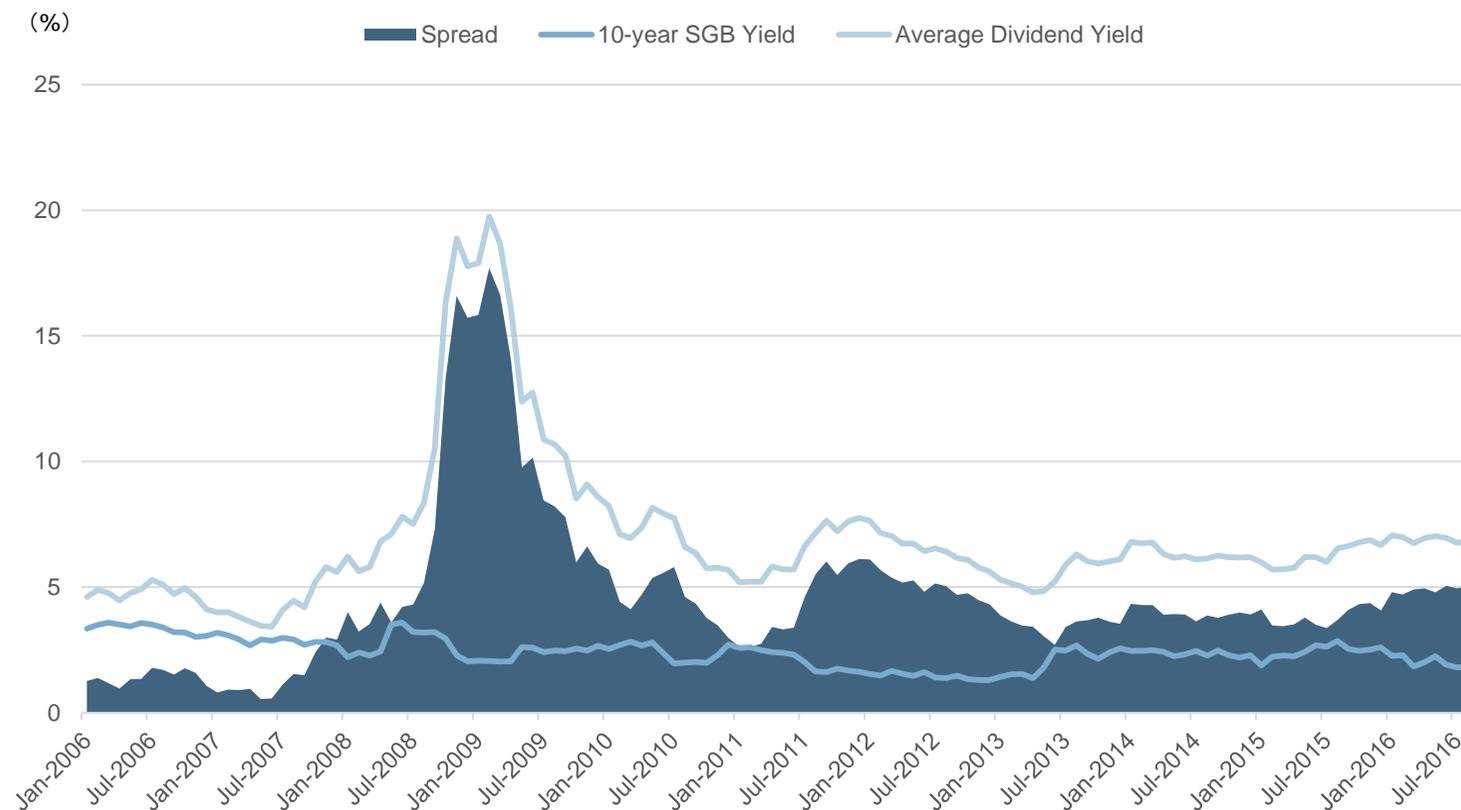


## REIT Market

Although the S-REIT dividend yield rose sharply in 2009 due to fears that the mortgage crisis would spread to Singapore, it has remained at approximately 7% since then

- Recent yield spread between S-REIT has also stayed close to 5%

Average S-REIT dividend yield and spread with 10-year Singapore government bond



<b>China</b>	Indeterminacy of market is rising cause of facing transition stage.
<b>Korea</b>	Residential and Real Estate Investment are stable although economic stagnation.
<b>Taiwan</b>	Integration within Greater China brings satisfactory in Hotel domain.
<b>Singapore</b>	Wider domains keep favorable, but residential and commerce show signs to weaken.
<b>India</b>	Economic growth improves broad domains in real estate.
<b>Russia</b>	Residential remains stable in spite of largely affected by devalued currency.

## India

Economic growth improves broad domains in real estate.

1

Macro Fundamentals

2

Real Estate Market Overview

3

Office Market

4

Residential Market

5

Retail Property Market

6

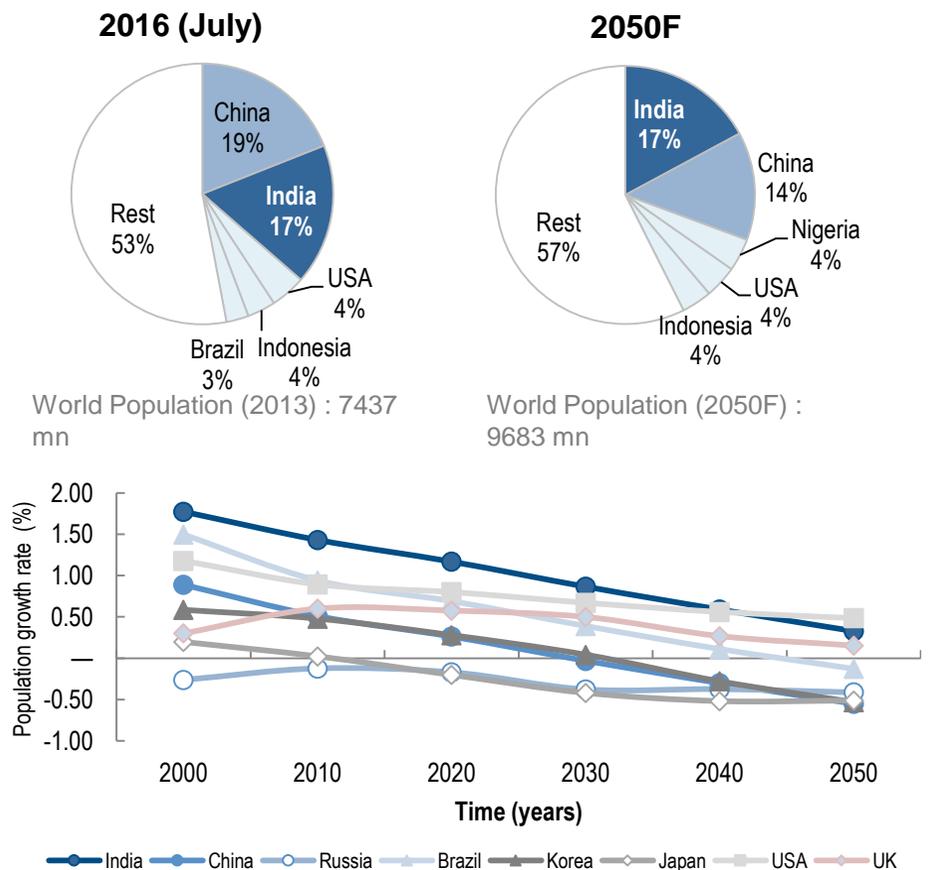
Logistics Property Market

7

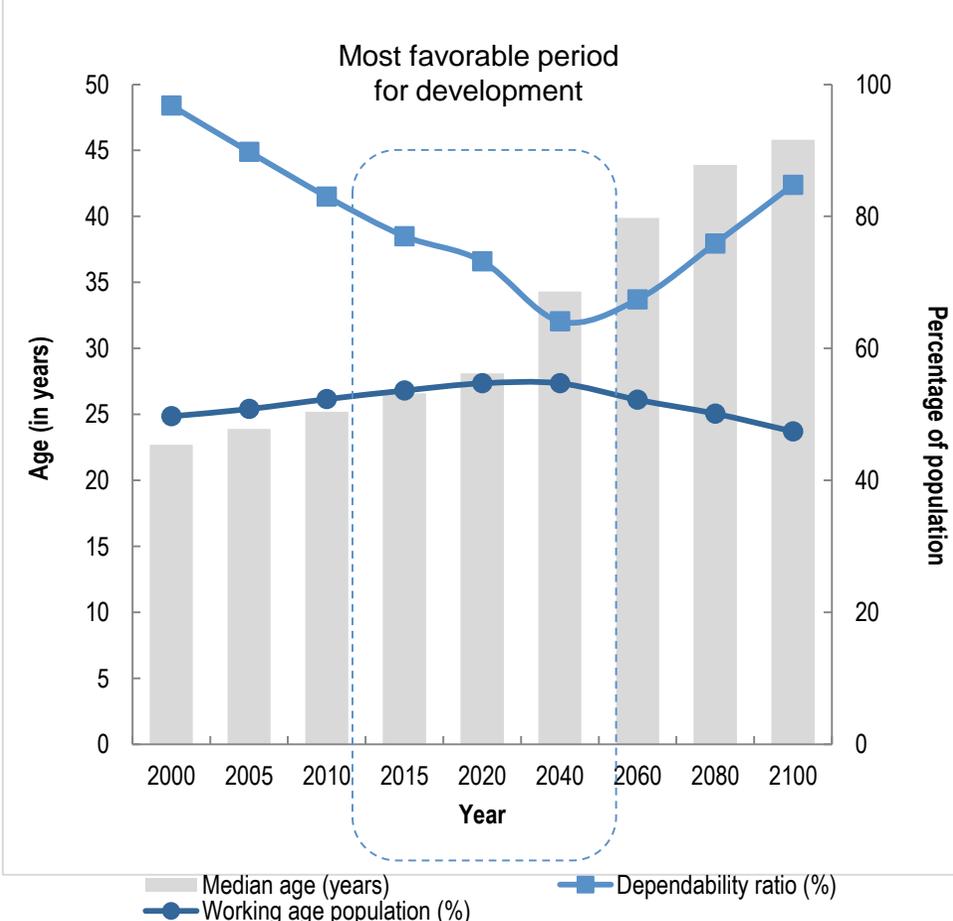
Hotel Market

India is a growing market not only due to rising population, but also owing to the fact that the majority of this population is young and of working age, thus driving consumption.

### India's Position in Population Growth

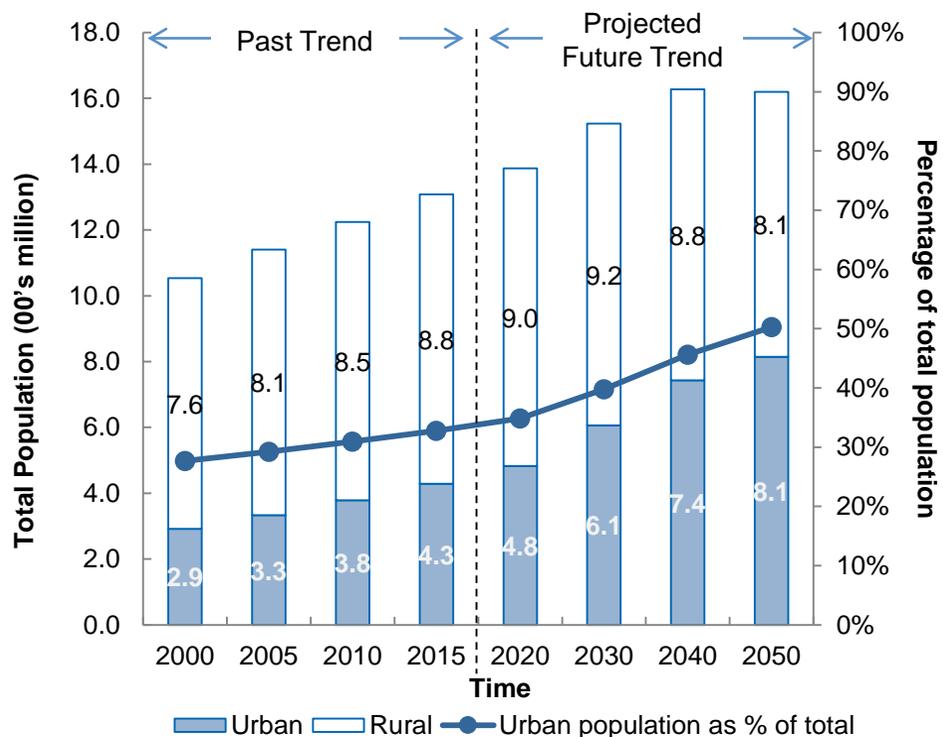


### India's Population Structure by Age



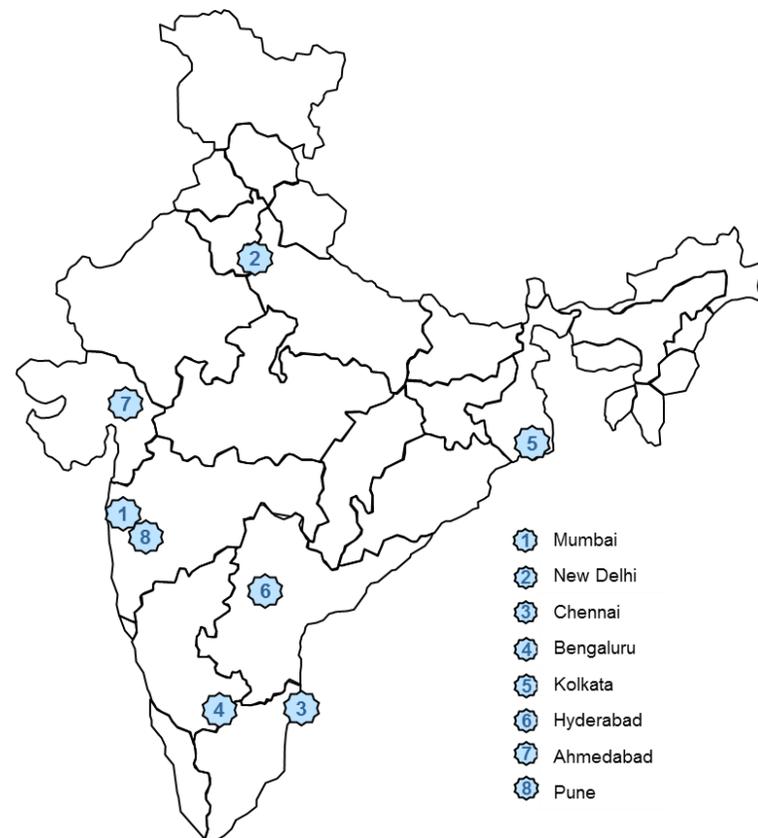
India is witnessing rapid urbanization that has led to the development of several urban centers that are significant drivers of middle class demand in the country.

### Urbanization Trends



Source: 1. World Urbanization Prospects: The 2014 Revision, UN Population Division;

### Major Urban Centers



## Macro-Economic Factor – Rapid Urbanization

India also has 46 cities with a 1 million plus population, and with increasing urbanization, this number will grow to 68 by 2030 as per government estimates.

### *Emerging urban centers and their popular reference*

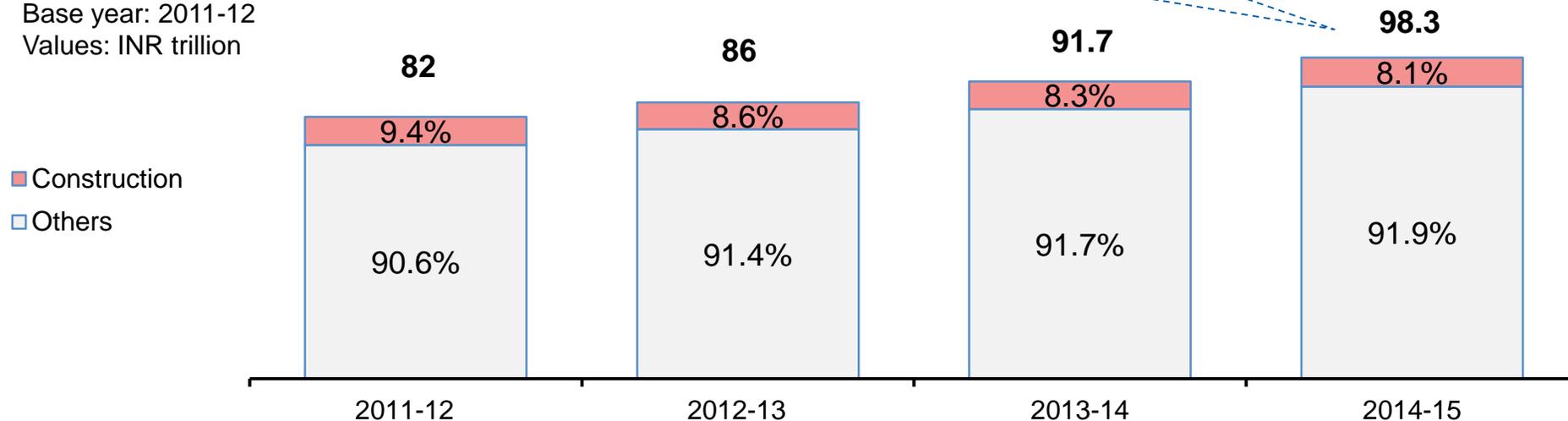
City Name	State Name	Population (2011)	Growth rate % (2001-11)	Popular reference
<b>Surat</b>	Gujarat	4,462,002	83.3%	Diamond capital
<b>Pune</b>	Maharashtra	3,115,431	22.7%	Established IT and Automotive hub
<b>Jaipur</b>	Rajasthan	3,073,350	32.3%	Tourism hotspot
<b>Nagpur</b>	Maharashtra	2,405,421	17.2%	Education hub
<b>Indore</b>	Madhya Pradesh	1,960,631	32.9%	Commercial and Industrial hub
<b>Visakhapatnam</b>	Andhra Pradesh	17,30,320	76.0%	Emerging IT and Logistics hub
<b>Patna</b>	Bihar	16,83,200	23.2%	Emerging Education and Agricultural hub
<b>Ludhiana</b>	Punjab	16,13,878	15.4%	Industrial hub
<b>Nashik</b>	Maharashtra	14,86,973	38.0%	Emerging Industrial hub and vineyard of India
<b>Coimbatore</b>	Tamil Nadu	10,61,447	14.0%	Manchester of India
<b>Guwahati</b>	Assam	9,63,429	19.0%	Education hub
<b>Chandigarh</b>	Punjab	9,60,787	18.8%	Emerging IT hub
<b>Gurgaon</b>	Haryana	8,76,824	405.3%	Established IT and Industrial hub
<b>Bhubaneswar</b>	Odisha	8,37,737	29.3%	Emerging IT hub
<b>Noida</b>	Uttar Pradesh	6,42,381	110.6%	Established IT hub
<b>Jamshedpur</b>	Jharkhand	6,29,659	9.9%	Industrial hub
<b>Kochi</b>	Kerala	6,01,574	0.9%	Emerging IT hub

Although the Indian economy has grown, the contribution of the construction sector to GDP has consistently remained low and declined in the last few years.

Contribution of Construction Sector to Country's GDP at factor cost (at current prices)

100% foreign direct investment (FDI) under automatic authorization route in the construction development sector has been notified subject to certain condition. This development is expected to improve the contribution of construction sector going forward (Dec 2014)

Base year: 2011-12  
Values: INR trillion

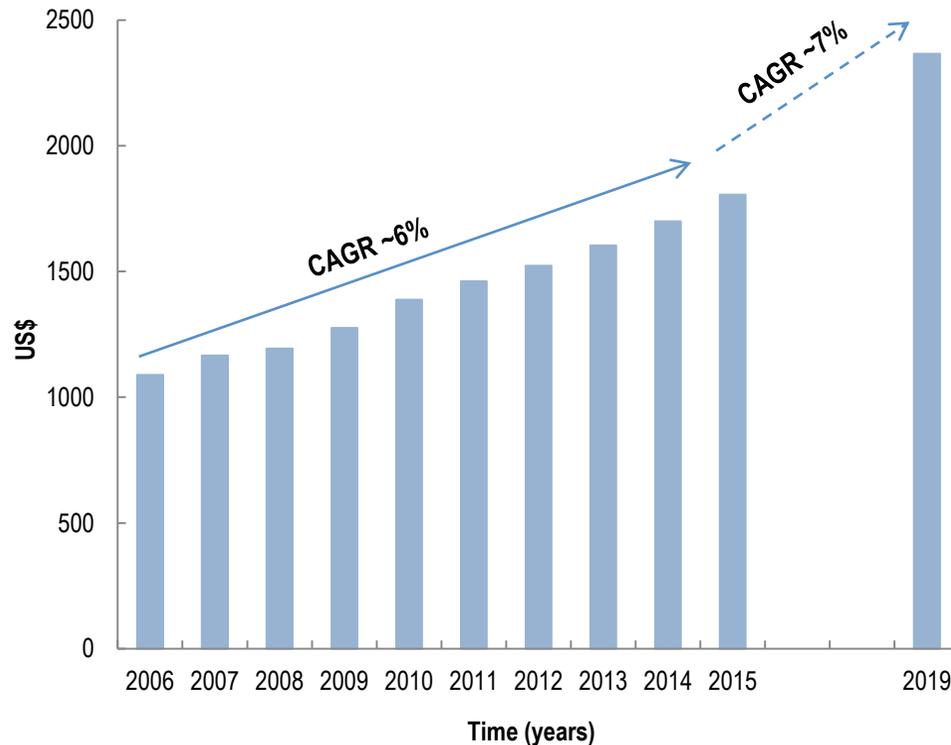


As demographic pressure grows, need to sustain economic growth will drive investments in the construction sector.

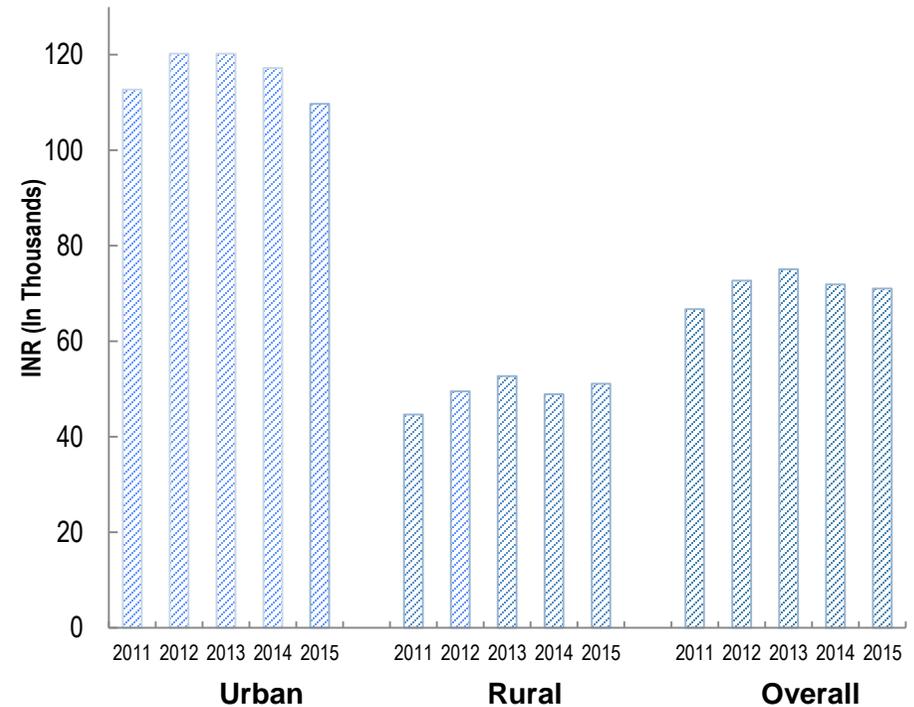
## Macro-Economic Factor – Income levels

India's per capita GDP and household savings are increasing, indicating an improvement in the economic condition of society, and thus an increase in demand for better infrastructure.

*GDP per capita at current prices*



*Average Household Savings per annum*

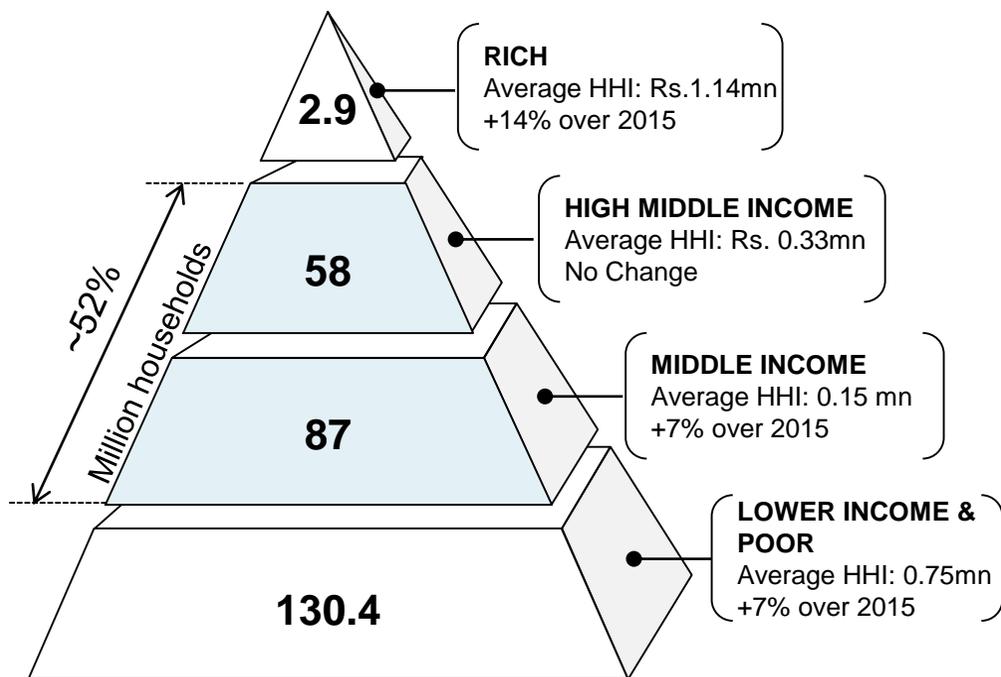


The improving economic condition of the society will increase the demand for better quality infrastructure, especially housing.

## Macro-Economic Factor – Income levels

India's middle class population is almost half of its total population, and among the highest consuming middle class groups in the world.

Structure of Population in March 2015 by Income



Top 10 Countries in Middle Class Consumption

RANK	2009		2020		2030	
	1	U.S	4.4	CHINA	4.5	<b>INDIA</b>
2	JAPAN	1.8	U.S	4.3	CHINA	10.0
3	GERMANY	1.2	<b>INDIA</b>	<b>3.7</b>	U.S	4.0
4	FRANCE	0.9	JAPAN	2.2	INDONESIA	2.5
5	U.K	0.9	GERMANY	1.4	JAPAN	2.3
6	RUSSIA	0.9	RUSSIA	1.2	RUSSIA	1.4
7	CHINA	0.7	FRANCE	1.1	GERMANY	1.3
8	ITALY	0.7	INDONESIA	1.0	MEXICO	1.2
9	MEXICO	0.7	MEXICO	1.0	BRAZIL	1.2
10	BRAZIL	0.6	U.K	1.0	FRANCE	1.1
	<b>WORLD</b>	<b>21</b>	<b>WORLD</b>	<b>35</b>	<b>WORLD</b>	<b>55</b>

India's middle class population would greatly drive demand in the construction sector.

HHI: Household Income per annum

HHI brackets: Rich (above Rs 0.73mn), High middle income (Rs. 0.73-0.20mn), Middle income (Rs. 0.2-0.1mn), Lower Income and Poor (below Rs. 0.1mn)

Source: CMIE Consumer Pyramid Data Retrieved 09<sup>th</sup> Sep 2016

Note: Middle class defined as those living in households with daily per capita income between US\$10-100 at 2005 US\$ PPP terms.

Source: Brookings Institution, OECD Working Paper no-285, 2010

## India

Economic growth improves broad domains in real estate.

1 Macro Fundamentals

2 Real Estate Market Overview

3 Office Market

4 Residential Market

5 Retail Property Market

6 Logistics Property Market

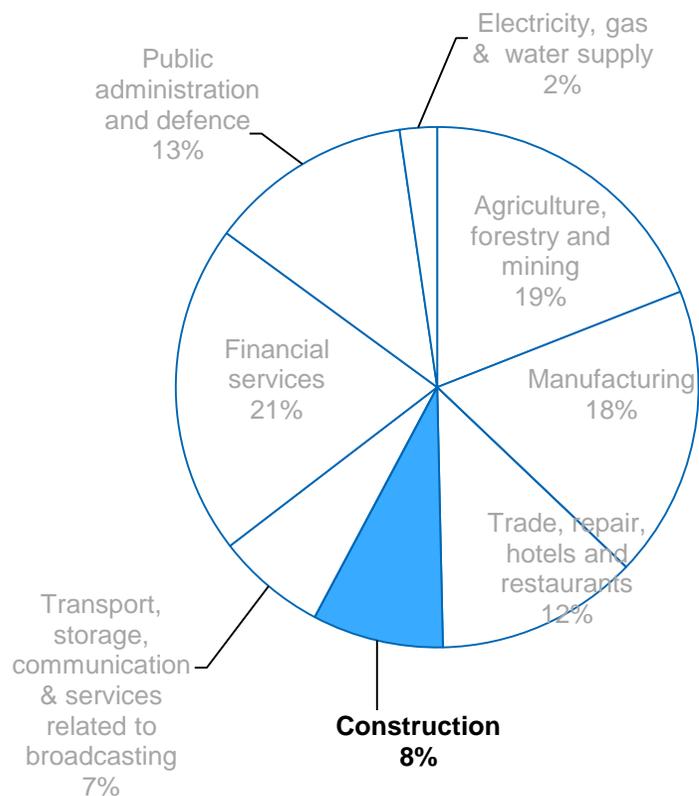
7 Hotel Market

## Real Estate Market Overview- Contribution and Growth

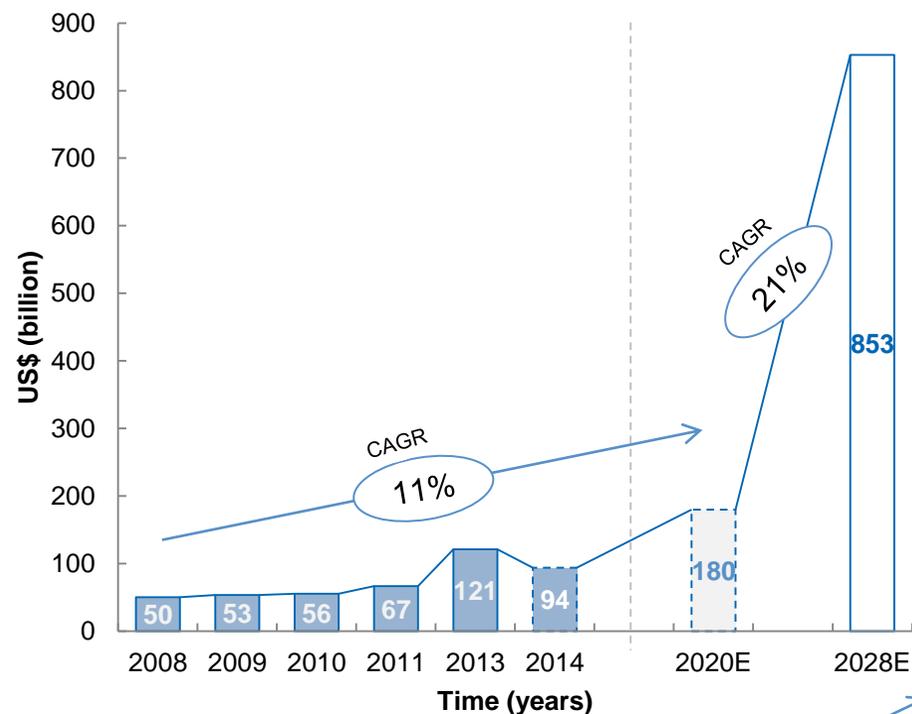
The construction sector contributed 8% to India's GDP in 2014-15. The market has witnessed steady growth in the past, which is likely to continue in the future owing to demographic pressure.

Sector contribution to GDP (Base year: 2011-12)

Total GDP (2014-15) value at current prices: INR 98.3 trillion



Real-estate market size and growth-rate



Note: Real-estate market includes ownership of residential, commercial and industrial dwellings and related business services

Source: Central Statistics Office (CSO), India 2015

Source: 1. Corporate Catalyst India, Real Estate Report 2012

2. IBEF India Nov'13 <http://www.ibef.org/industry/real-estate.aspx>

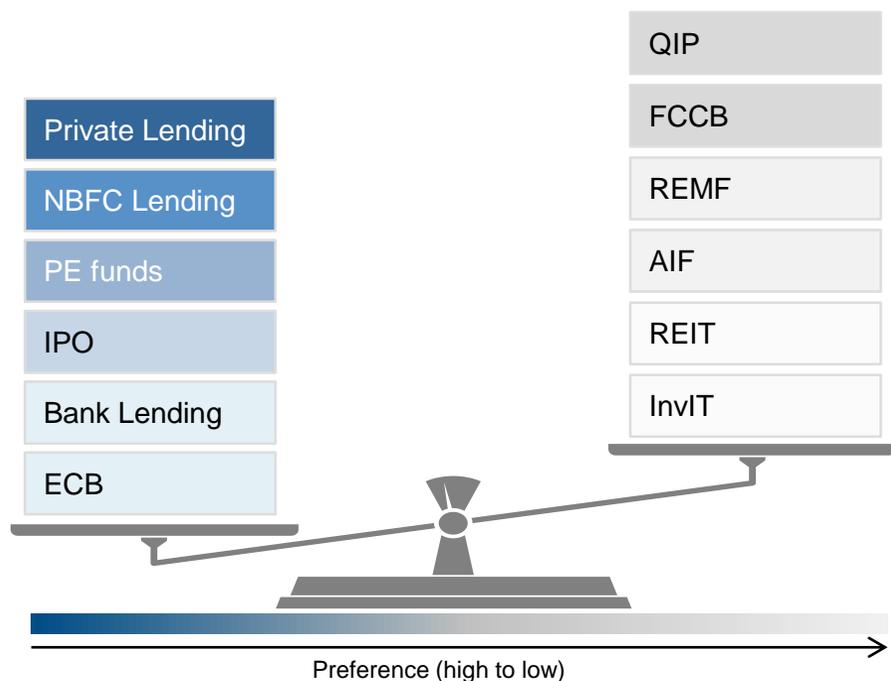
The real estate sector in India is very fragmented, with a large number of regional developers dominating key urban centers across multiple asset classes.

List of Prominent Real Estate Developers (Listed Players only)

Developer Name	Revenue USD mn (FY16)	Focused Market	Asset Class				
			Residential	Retail	Office	Hospitality	Industrial
DLF Ltd.	1,397	North India	○	○	○	○	
Prestige Estates Projects Ltd.	690	Bangalore	○	○	○	○	
Godrej Properties Ltd.	397	West India	○		○		
Indiabulls Real Estate Ltd.	395	Metro Cities	○	○	○		
Unitech Ltd.	303	North India	○	○	○	○	
Sobha Ltd.	281	South India	○	○			
The Phoneix Mills Ltd.	268	West & South	○	○		○	
Omaxe Limited	250	North India	○	○			
Brigade Enterprises Ltd.	245	South India	○	○	○	○	
Oberoi Realty Ltd.	211	West India	○	○	○	○	
HDIL	174	Mumbai	○	○	○		○
Mahindra Lifespace Developers	125	West & South	○				○
Ashiana Housing Ltd.	73	North India	○	○			
Nesco Ltd.	39	Mumbai			○		
Nirlon Ltd.	38	Mumbai			○		○

Private lending, NBFC lending and PE funds continue to be the primary sources of real estate financing. Recently, to improve developer sentiment, REITs and InvITs have been allowed.

Financing options by developers preference



- NBFC: Non-banking Financial Company
- PE: Private Equity
- IPO: Initial Public Offering
- ECB: External Commercial Borrowing
- QIP: Qualified Institutional Placement
- FCCB: Foreign currency bonds
- REMF: Real Estate Mutual Fund
- AIF: Alternative Investment Fund
- REIT : Real Estate Investment Trust
- InvIT: Infrastructure Investment Trust

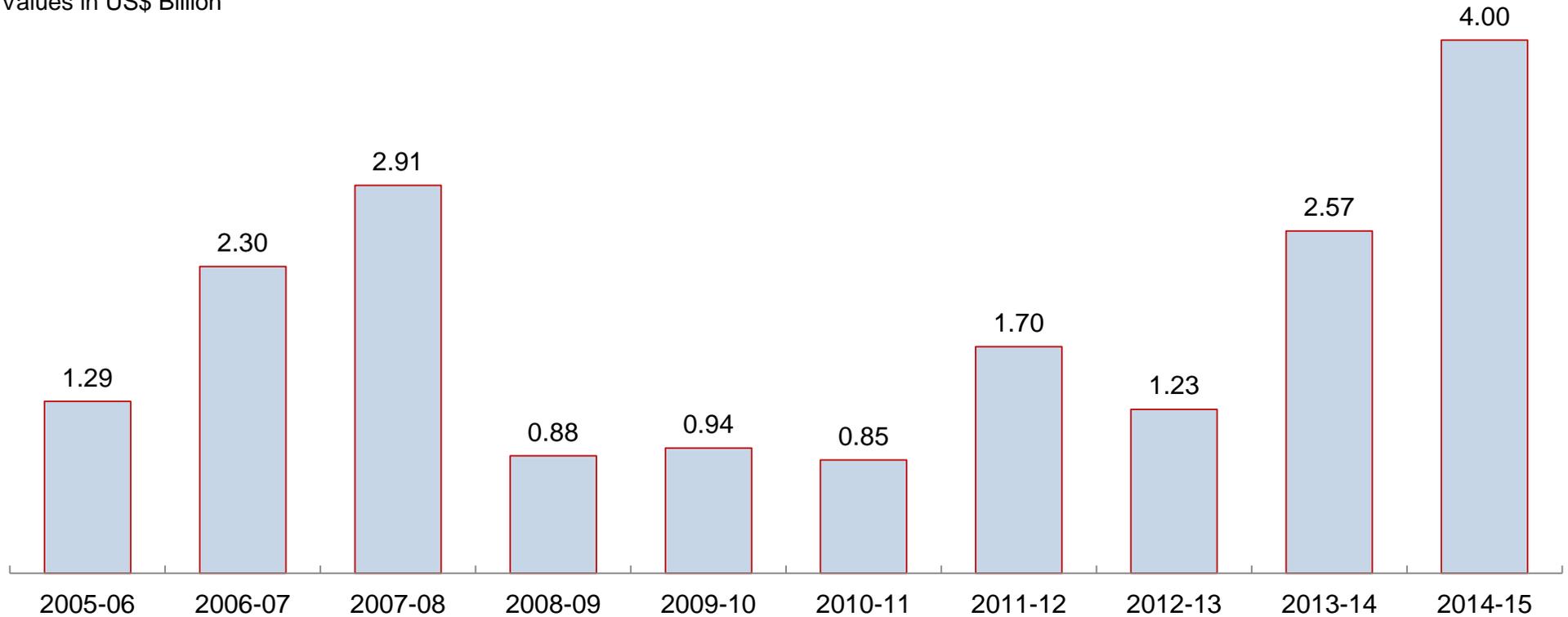
Recently Introduced Financing Options

Option	Brief Description	Merit
<b>AIF</b>	<ul style="list-style-type: none"> <li>Diversified portfolio of funds that invest in real estate, infra and other priority sector projects</li> </ul>	<ul style="list-style-type: none"> <li>Long-term money can be invested in unlisted companies</li> <li>Easy access of money from foreign investors</li> </ul>
<b>REIT</b>	<ul style="list-style-type: none"> <li>Corporate body responsible to publicly trade / manage portfolio of <u>real estate assets</u> on behalf of investors</li> </ul>	<ul style="list-style-type: none"> <li>Will create exit opportunities for developers and financial investors</li> <li>Infuse transparency and liquidity in the market</li> </ul>
<b>InvIT</b>	<ul style="list-style-type: none"> <li>Corporate body responsible to publicly trade / manage portfolio of income generating <u>infrastructure projects</u></li> </ul>	<ul style="list-style-type: none"> <li>Will create liquidity for private infrastructure players</li> <li>Will lower debt exposure and unlock tied up capital of developers</li> </ul>

PE investments have bounced back, mainly because investors have shown renewed interest in residential and leased office spaces, in anticipation of quick capital appreciation.

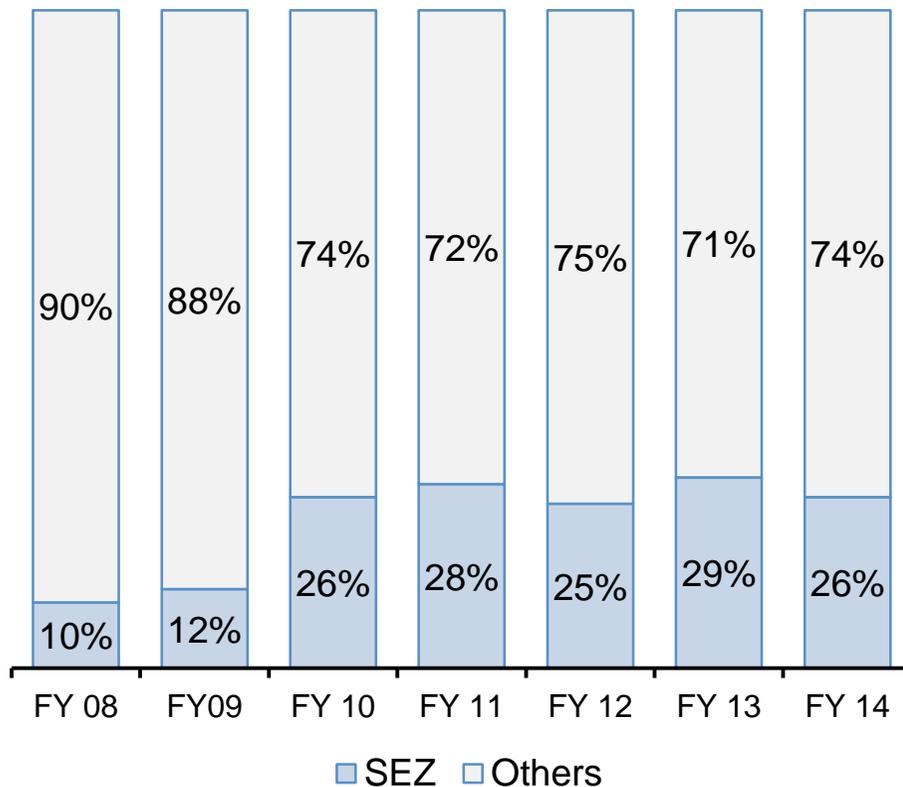
*PE Inflows in the Real Estate Sector*

Values in US\$ Billion



## Special Economic Zones (SEZ) in the last decade have emerged as a viable option to develop real estate.

Share of SEZ exports in Total Exports of India



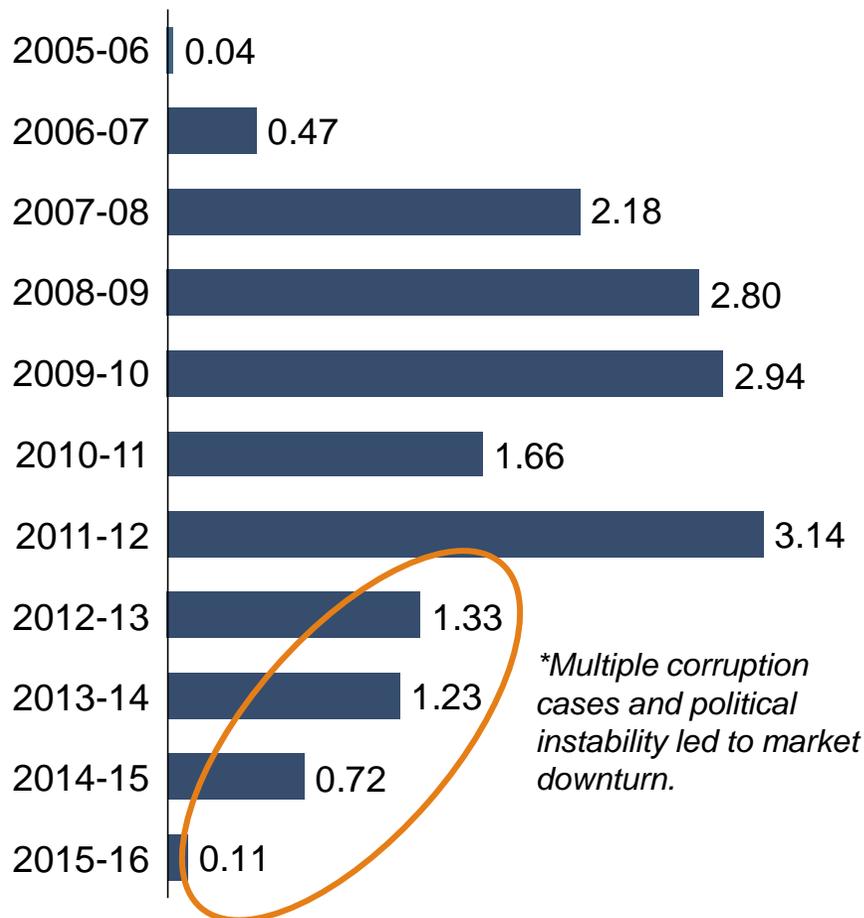
- 100% FDI has been permitted in real estate projects within Special Economic Zone(SEZ).
- 100% FDI has been permitted for developing townships within SEZs with residential areas, markets, playgrounds, clubs, recreation centres, etc.
- Exports from SEZs accounted for 26.1% of total exports in July 2014.
- Industry players, including realtors and property analysts, are rooting for the creation of “Special Residential Zones“ (SRZs), along the lines of SEZs.
- Minimum land requirement has been brought down from 1000 hectares to 500 hectares for multi-product SEZ, and for sector-specific SEZs to 50 hectares.

**FDI in the construction development sector has been on a decline over the past few years; however, recent changes in FDI guidelines will improve overall investments in the sector.**

*Summary of FDI policy in real estate sector*

Topic	Brief Description
<b>Investment Limit</b>	<ul style="list-style-type: none"> <li>• 100% equity allowed</li> <li>• Automatic authorization route, no prior government approval required</li> </ul>
<b>Key Restrictions</b>	<ul style="list-style-type: none"> <li>• Construction of farm houses, trading in transferable development rights (TDRs) and dealing in land or immovable property</li> <li>• Lock-in period of 3 years</li> </ul>
<b>Relaxations</b>	<ul style="list-style-type: none"> <li>• No lock-in period in case of hotels &amp; resorts, hospitals, SEZs, educational institutions and old age homes</li> <li>• Transfer from one non-resident to another non-resident will not be subject to 3 year lock-in period</li> <li>• FDI permitted in completed projects for operations and management of townships, malls / shopping complexes and business centers</li> </ul>
<b>Key Implications</b>	<ul style="list-style-type: none"> <li>• Will help revive projects that could not receive capital earlier</li> <li>• Foreign investors will be able to speed up its investment process</li> <li>• Encouraging environment for foreign developers.</li> </ul>

*FDI in Real-estate sector (USD bn)*



Real Estate bill 2016 (draft) (recently passed in Rajya Sabha) is expected to bring in greater accountability, and reduce fraud and project delays in the sector.

*Background*

**Boom in residential market driving new entrants**

- Rising population and income has led to an **excessive demand for housing in India** for the last two decades.
- As a result, **several firms jumped into the housing development business** to capture a share of this booming market.

**Race to capture this demand impacted quality**

- In a race to capture demand, **developers started launching several projects simultaneously**, by investing consumers' money into buying new land sites.
- Gradually, developers' intensity **started affecting their cash flows** and not just numbers but project sizes became larger.

**Lead to consumer dissatisfaction**

- This **resulted in poor quality construction, severe delay in projects completion**, etc., leading to consumers' increasing dissatisfaction, legal disputes etc.
- Hence, the Real Estate (**Regulation and Development**) Bill, 2016 was introduced to **re-instate transparency and discipline** in the real estate sector and passed in March 2016.

*Key Provisions of Bill*

Topic	Brief Description
<b>Scope</b>	<ul style="list-style-type: none"> <li>• Covers both <b>residential</b> and <b>commercial</b> real estate assets</li> <li>• Covers not just <b>developers</b>, but also <b>brokers &amp; agents</b></li> <li>• All <b>under-construction</b> projects will be covered</li> </ul>
<b>Institutional Framework</b>	<ul style="list-style-type: none"> <li>• All states have to setup a <b>regulatory board</b> by March 2017</li> <li>• Also, a <b>web-based online registration facility</b> within a further period of 1 year from setting up the bodies</li> </ul>
<b>Key Points</b>	<ul style="list-style-type: none"> <li>• Developers need to <b>register all its projects</b> within 3 months of setup</li> <li>• Regulators can <b>cancel registration</b> in case of any violations found in that project</li> <li>• Has provision for <b>imprisonment</b> of promoter of developer co. for up to 3 years and up to 1 year for real estate agents in case of rule violations</li> <li>• Developers <b>cannot change design</b> without the consent of 2/3<sup>rd</sup> of buyers in that project</li> <li>• Developers to <b>maintain 70% of money collected</b> from buyers in an exclusive <b>escrow account</b></li> <li>• In case of delay in project possession, a <b>developer needs to pay the same interest rate</b> to a buyer as the buyer would pay to the developer in the case of a delay in payment</li> </ul>

Owing to stiff opposition and low numbers in Rajya Sabha for the current BJP Govt, it looks unlikely that the Land Acquisition Act will be passed in the near future (1–2 years)

*Recent Government Initiatives in real estate sector (continued)*

Developments	Objective	Key Provisions
<p><b>Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement (RFCTLARR) Bill, 2015 (draft)</b></p>	<ul style="list-style-type: none"> <li>To make amendments in the current RFCTLARR bill in order to bring more investment into the infrastructure sector</li> </ul>	<ul style="list-style-type: none"> <li>In the recent past, companies were dropping their infrastructure investment plans due to the complex procedure of acquiring land. The Land Acquisition Bill that passed in Jan 2014 was not able to address this issue completely. This led the current govt. to make amendments in the existing bill</li> </ul> <p>Key Amendments made</p> <ul style="list-style-type: none"> <li>Removed exemptions for Social Infrastructure Projects in public-private-partnership mode</li> <li>Land that will be acquired for industrial corridors will be limited to one kilometre on either side of highways and railway lines</li> <li>Compulsory employment will be provided to one member of a farming family that is selling its land</li> <li>Farmers may get the right to appeal/complain over land acquisition in a hearing and redress grievances at the district level</li> <li>Ceiling on land for acquisition in industrial corridors</li> <li>Village Administrative Bodies nod may be mandatory for acquiring tribal land</li> <li>Government may acquire land for government bodies, corporations</li> <li>Term “private entity” was replaced with “private enterprise”</li> </ul> <p><b>Current Status of bill:</b> The current BJP Govt allowed the Land Acquisition Ordinance to lapse in Aug 2015 after renewing it 3 times earlier. The ordinance was allowed to lapse because the govt. was unable to pass the bill in the upper house or the Rajya Sabha, as it was facing stiff opposition from Congress (principal opposition party) and others.</p>

The government is working on various policy reforms related to the real estate sector in order to increase transparency and build efficiency in the sector.

*Recent Government Initiatives in real estate sector (continued)*

Developments	Objective	Key Provisions
<b>Proposed amendment to Finance Bill, 2012</b>	<ul style="list-style-type: none"> <li>• To increase transparency in transactions</li> <li>• To reduce black money flows</li> <li>• To collect reliable data</li> <li>• To support affordable housing scheme</li> </ul>	<ul style="list-style-type: none"> <li>• Transfer pricing provisions to be allowed on domestic transactions between related parties</li> <li>• Deduction of capital expenses on Income tax for developers making affordable housing projects</li> <li>• Stringent guidelines for projects that are applied under affordable housing programs of central and state governments.</li> <li>• External commercial borrowings (ECB) up to USD 1 billion allowed for affordable housing projects</li> <li>• Beneficial rate of 5% on interest to NRIs that fund such projects</li> </ul>
<b>Planning Commission recommendations to increase the Floor Space Index (FSI) in urban areas</b>	<ul style="list-style-type: none"> <li>• To encourage the vertical growth of cities</li> <li>• To build capacity</li> <li>• To improve infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>• Additional FSI to be provided to real estate projects beyond the permissible index at an extra charge of at least 50% of area/circle rates</li> </ul>
<b>Revised Guidance Note on recognition of revenue by real estate developers</b>	<ul style="list-style-type: none"> <li>• Removing ambiguity in accounting practices followed by real estate developers</li> </ul>	<ul style="list-style-type: none"> <li>• The definition of a real estate project has been redefined and broadened to capture all structures of transactions.</li> <li>• A list of stringent preconditions have been set up for revenue recognition.</li> </ul>

## Government regulations have focused strongly on building an organized framework for the real estate sector

### *Recent Government Initiatives in real estate Sector (continued)*

Developments	Objective	Key Provisions
<b>Launch of Sardar Patel Urban Housing Mission by Central Govt.</b>	<ul style="list-style-type: none"><li>• Aimed at creating slum free cities across the country</li></ul>	<ul style="list-style-type: none"><li>• Total 30 million houses to be built by 2022</li><li>• Most of these houses will be for the economically weak section and low-income groups through public private partnership, interest subsidy and increased flow of resources to the housing sector</li></ul>
<b>Ease in securing of construction permit in Kerala state govt.</b>	<ul style="list-style-type: none"><li>• Introduce standardized procedure, reduce corruption and bribery</li></ul>	<ul style="list-style-type: none"><li>• The state govt. of Kerala has decided to make a process of securing construction permits from local bodies for construction of houses. This will be done by making the process online with the launch of new software called Sanketham.</li></ul>

## Government announcements in Budget aim at promoting investment in Affordable Housing, providing Easy Finance options to developers and lowering costs of Construction

*Budget Announcement for Infrastructure Sector & its potential impact on Real Estate Sector – FY16-17*

Key Announcement	Potential Impact on Real Estate Sector
<ul style="list-style-type: none"><li>• <b>100% deduction on profits</b> earned by assets engaged in developing and building affordable housing projects for <b>flats up to 30 m<sup>2</sup> in four metro cities and 60 m<sup>2</sup> in other cities</b>, approved from June 2016 to March 2019 and to be completed in three years</li></ul>	<ul style="list-style-type: none"><li>• Promotes small scale house development and also in line with Govt policy of Housing for all by 2022</li></ul>
<ul style="list-style-type: none"><li>• <b>Increased the limit</b> of deduction of rent paid <b>under section 80GG</b> from <b>INR 24000 to INR 60000</b></li></ul>	<ul style="list-style-type: none"><li>• Provides relief to those who live in rented houses and spurs the rental market</li></ul>
<ul style="list-style-type: none"><li>• <b>Additional deduction of INR. 0.5 million to first time home-buyers on home loan interest</b> for loans not exceeding INR 3.5 million, where the value of the house is no more than INR 5 million</li></ul>	<ul style="list-style-type: none"><li>• Result in improved home buying sentiment in smaller cities with lower housing costs</li></ul>
<ul style="list-style-type: none"><li>• <b>Exempted from levy of dividend distribution tax</b> on amount of dividends paid by a special purpose vehicle <b>to a Real Estate Investment Trust ('REIT' and INVITs)</b></li></ul>	<ul style="list-style-type: none"><li>• Makes REIT an effective vehicle for real estate developers to monetize their assets and raise funds from investors and at the same time reduce the debt in the sector</li></ul>
<ul style="list-style-type: none"><li>• <b>Extended excise duty exemption</b>, presently available to Concrete Mix manufactured at site for use in construction work <b>to Ready Mix Concrete</b></li></ul>	<ul style="list-style-type: none"><li>• Reduces construction cost</li></ul>

## India

Economic growth improves broad domains in real estate.

1 Macro Fundamentals

2 Real Estate Market Overview

3 Office Market

4 Residential Market

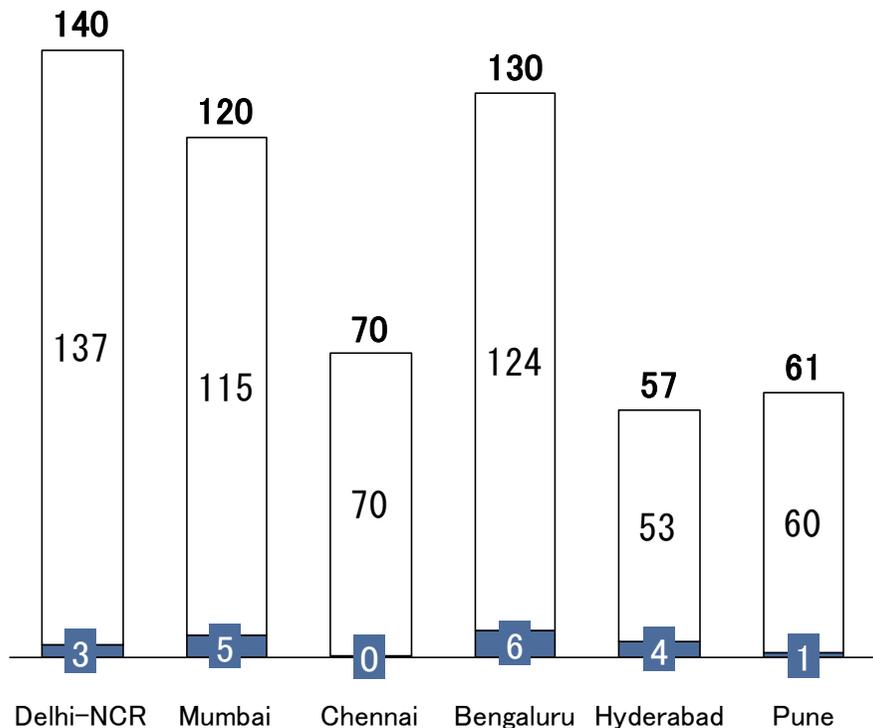
5 Retail Property Market

6 Logistics Property Market

7 Hotel Market

NCR, Bengaluru and Mumbai mainly dominate office stock and supply. On the demand side, office absorption is the best in Bengaluru

Office Stock & Supply Trends (million sqft.)

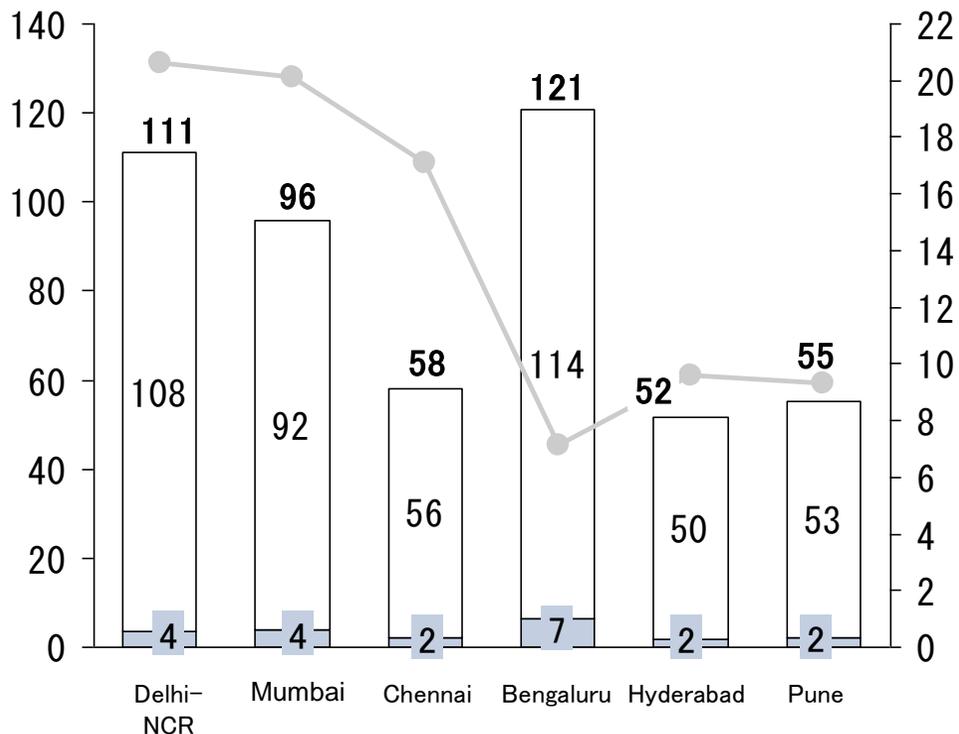


Existing Stock

New Supply in H1 2016

Total stock

Office Space Absorption Trends (million sqft.)



Vacancy Rate %

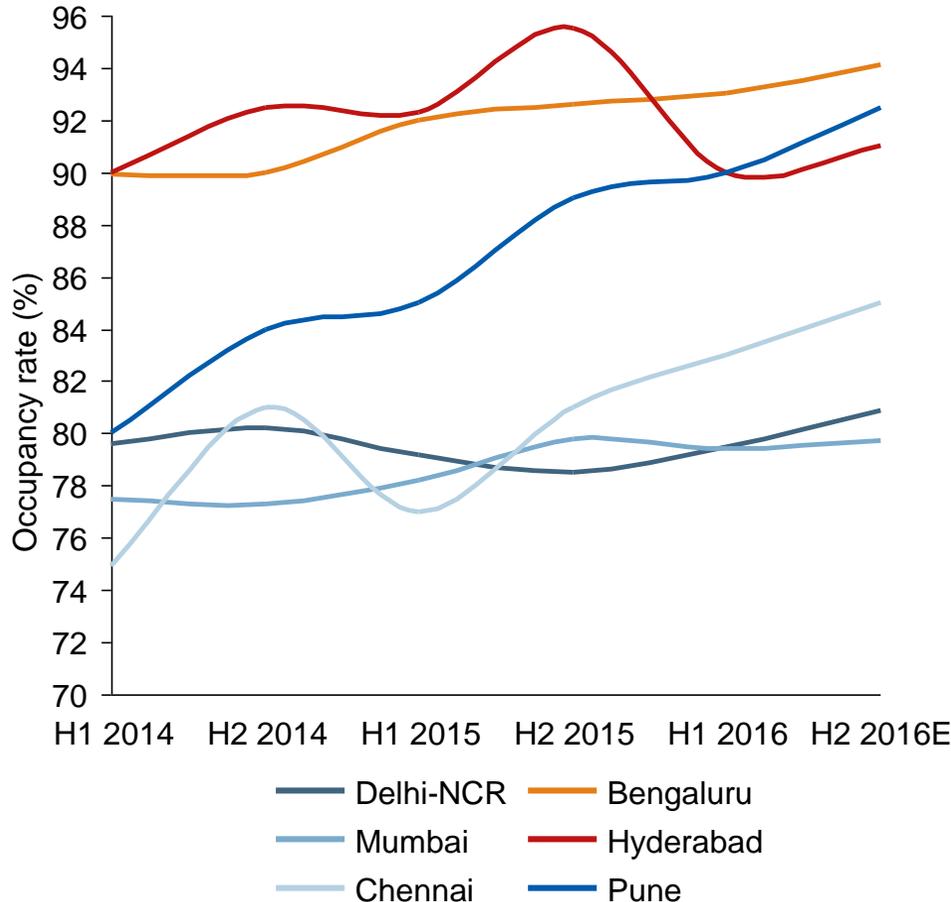
Existing Occupied Stock

Stock Sold in H1 2016

Total occupied stock

Cities such as Bengaluru and Hyderabad have witnessed robust occupancy trends as compared to others, while Delhi CBD commands the highest rentals

Occupancy Trends



Source: Knight Frank | Units in %

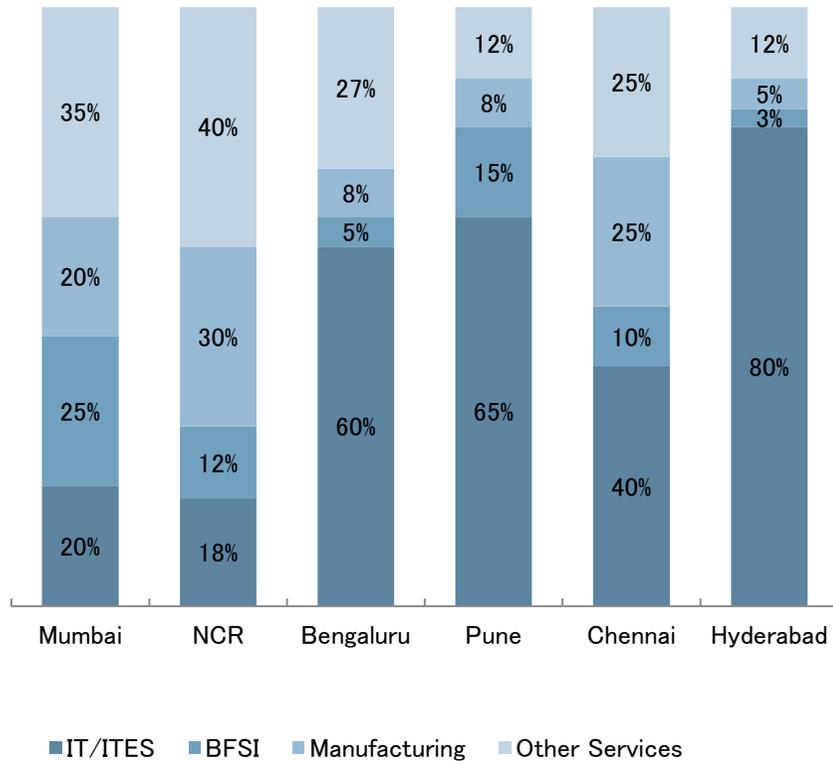
Rental Value Trends in CBD

Markets	Rental range (INR/sqft./month)	Change y-o-y%
Delhi-NCR	214-350	+12%
Mumbai	160-250	-4%
Chennai	60-100	+4%
Bengaluru	75-98	+4%
Hyderabad	42-48	+3%
Pune	70-100	+6%

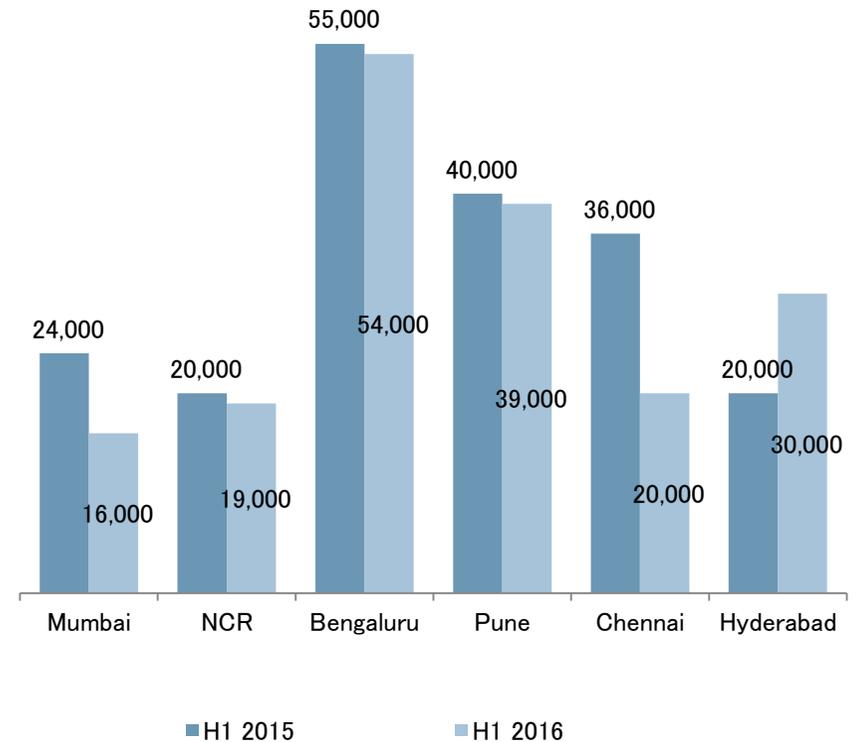
Source: Knight Frank | 12 month price change (H1 2015 – H2 2016)

The IT/ITES sector has taken a large chunk of space in Bengaluru, Pune, and Hyderabad in H1 2016. Also, deal size across cities has declined from H1 2015 to H1 2016 except for Hyderabad

Sector-wise Transactions Split (H1 2016)



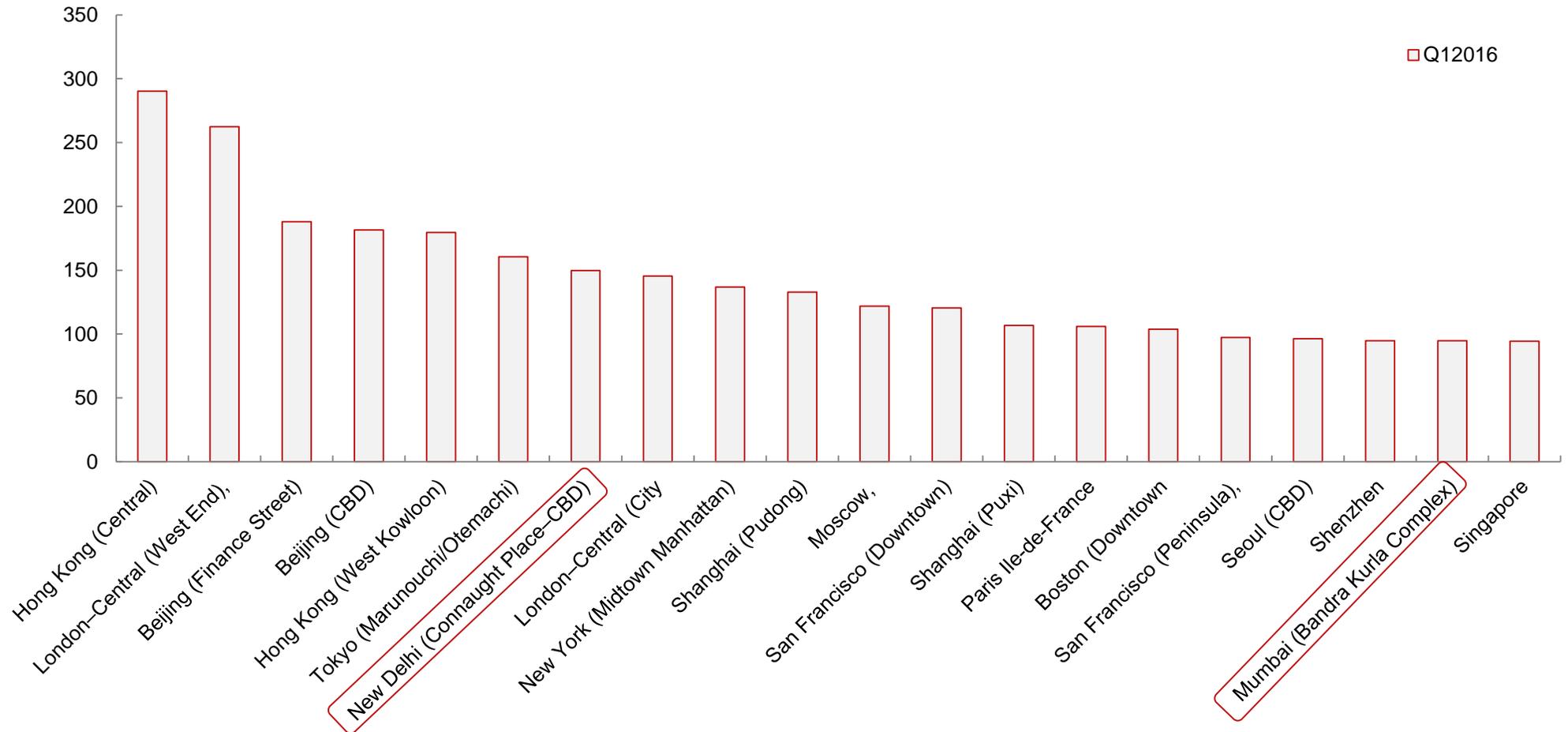
Deal Size Analysis (Sq ft.)



Office Space – Prime office space occupancy costs

**New Delhi (Connaught Place–CBD) and Mumbai (Bandra Kurla Complex) are two prime areas that are featured in the Global 50 Most Expensive Prime Office Occupancy Cost list.**

Prime office space occupancy costs in US\$ per sq. ft. per annum



The office space market has improved, with both demand and supply witnessing an increase. MNC companies have expanded office spaces due to a renewed interest in Indian business.

 Market Factors	H1 2016 -Growth Trend	Reason
Demand		<ul style="list-style-type: none"> <li>• Demand for office space picked up in most cities, as there was a 12% growth in transaction volume across the top six cities of India.</li> </ul>
Supply		<ul style="list-style-type: none"> <li>• In terms of new completions, H1 2016 has been an encouraging period, as more than 19 mn sq. ft. of space was delivered.</li> <li>• Delivery of multiple projects across cities such as Mumbai, Pune and Chennai led to the increase in supply.</li> </ul>
Rental Values		<ul style="list-style-type: none"> <li>• Rental values have increased in all cities except Mumbai, which has witnessed a decline.</li> </ul>
Noticeable Trends	<ul style="list-style-type: none"> <li>• Multi-national companies are increasing investments in India</li> </ul>	<ul style="list-style-type: none"> <li>• With a new and stable union government in place, foreign investor sentiment is improving and MNCs are expanding office spaces in major cities as a result of business expansion in India.</li> <li>• This trend is more prominent for IT, BFSI and Consulting-based MNC companies.</li> </ul>

**New completions are expected to rise marginally given multiple projects being delivered in Mumbai, Pune & Chennai.**

*Office Space Outlook for Next 6 Months*

Type	H2 2015	H2 2016 (E)	Growth
<b>New Completions</b> (mn sq. ft.)	18.7	19.2	3%
<b>Transactions</b> (mn sq. ft.)	23.2	22.7	-2%
<b>Vacancy</b>	15%	14%	-



- The office market will witness a rise in new completions in the coming six months.
- The rise in new completions will be led by cities such as Mumbai, Pune, and Chennai.
- Meanwhile, the office space market is expected to witness a marginal decline in transactions from 23.2 mn sq. ft. in H2 2015 to 22.7 mn sq. ft. in H2 2016
- An overall increase in office space demand is expected to lead to a decline in vacancy rates in H2 2016.

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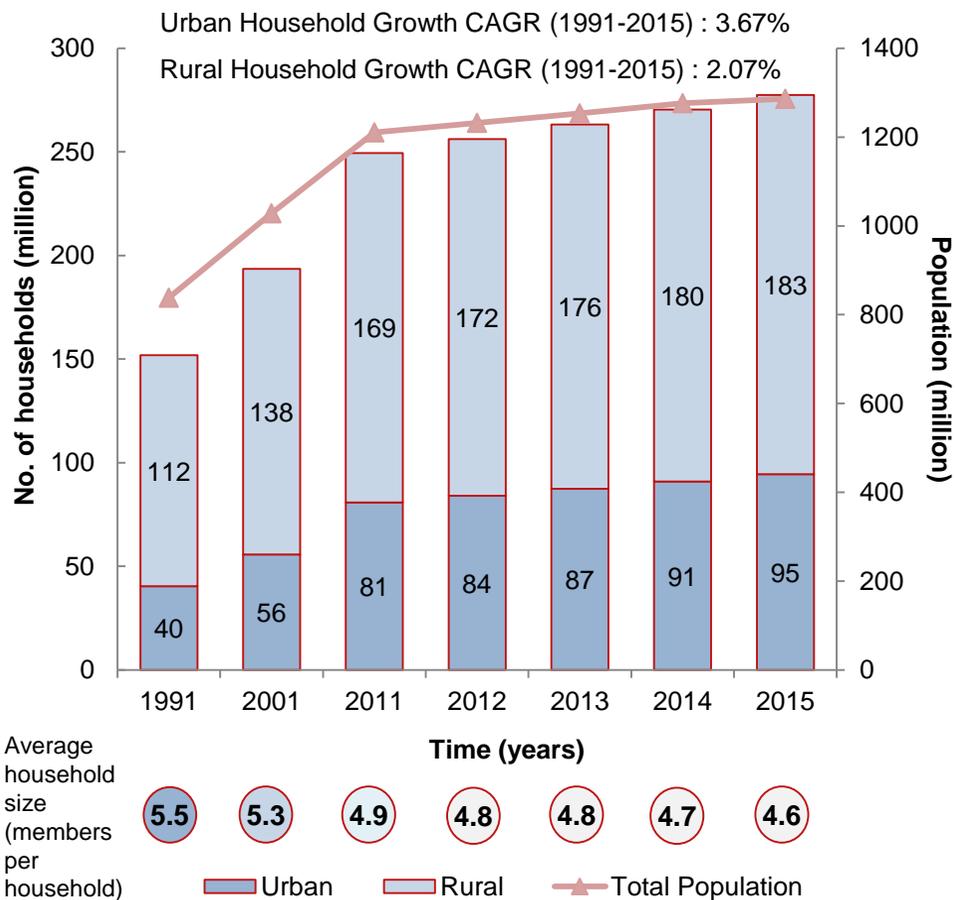
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Hotel Market

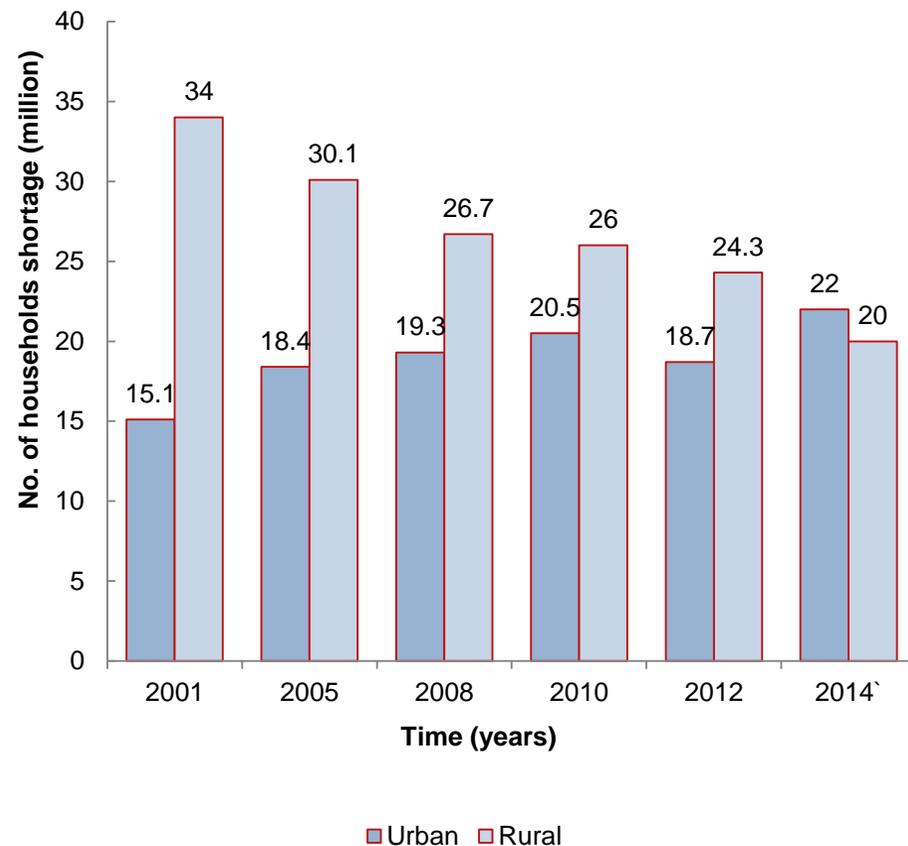
## Residential Space – Average household member size

Rising population and increasing nuclear families are pushing the demand for housing, leading to a household shortage in the country.

Household growth rate



Urban/rural housing shortage

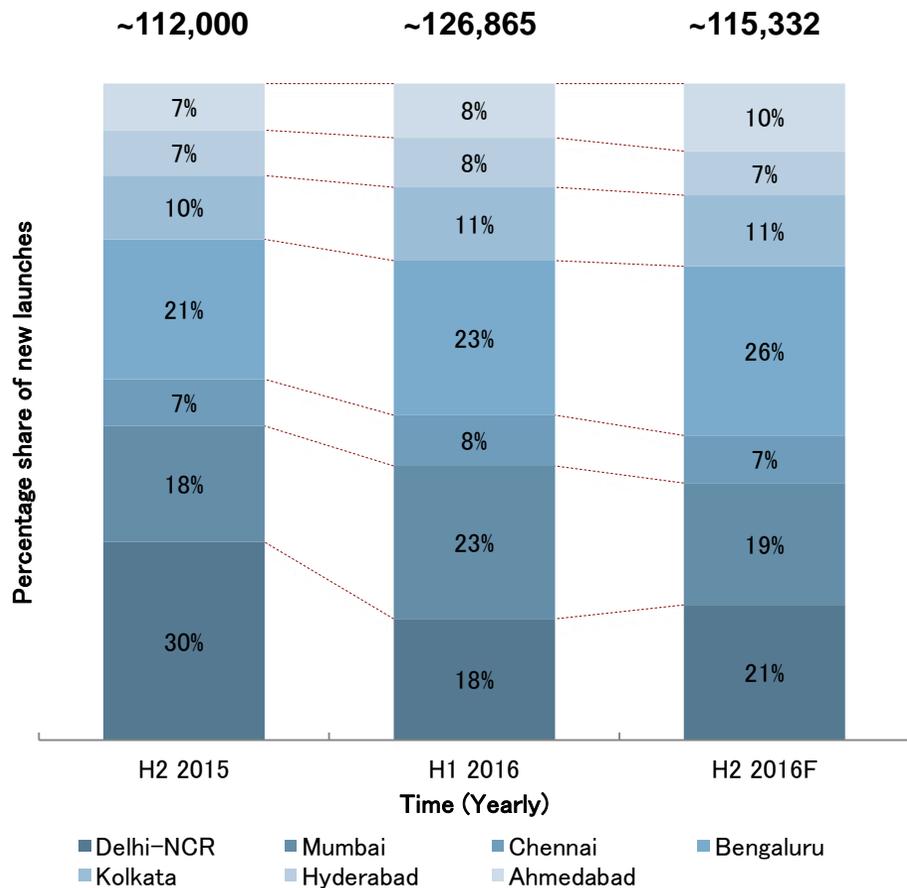


Source: CMIE Consumer Pyramid Data Retrieved 13<sup>th</sup> September 2016

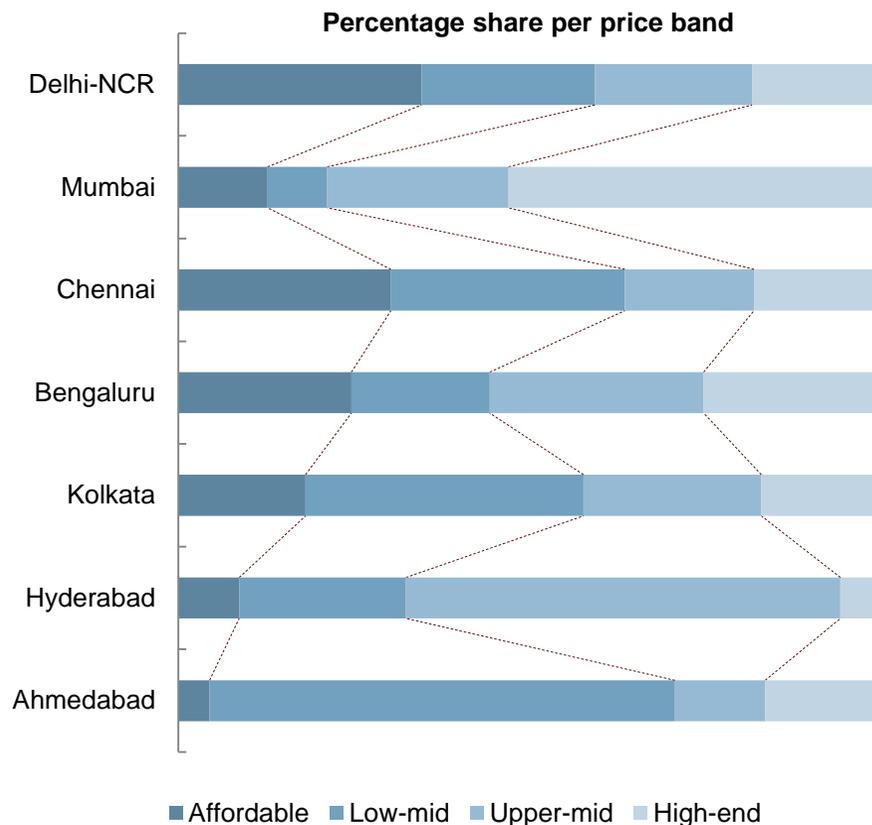
Source: 1. Ministry of Housing and Urban Poverty Alleviation  
2. Planning Commission working group on rural housing

Delhi & Bengaluru dominate the new residential apartment supply; however, Mumbai leads in the supply of more high-rise luxury apartments.

New Residential Apartment Supply Trends



Composition of New Supply

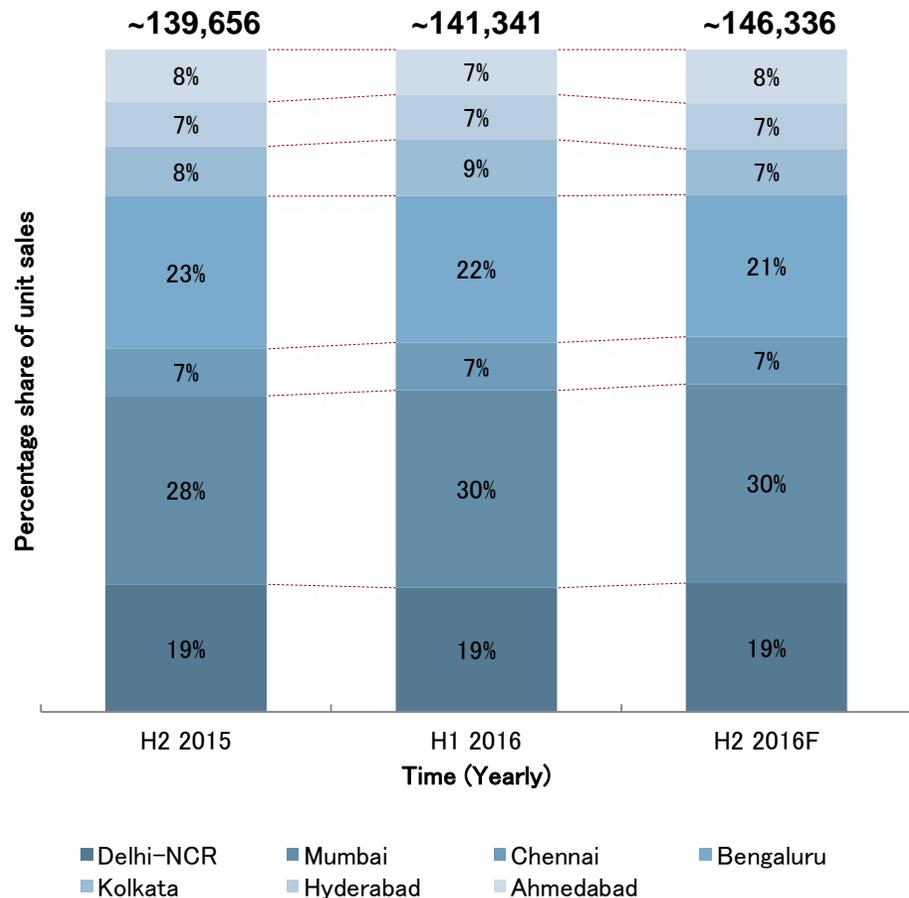


Source: Knight Frank

Source: Content sourced from proprietary information of Jones Lang LaSalle India

Mumbai & Bengaluru have dominated residential absorption. The Delhi NCR market declined in capital values due to oversupply.

Residential Apartment Sales Trends



Capital Value Trends

Markets	All residential	Premium segment
Delhi-NCR	-4%	-5%
Mumbai	+1.2%	+1.7%
Chennai	+2.9%	+8%
Bengaluru	+3%	-1%
Kolkata	+2%	+3%
Hyderabad	+3%	+3%
Ahmedabad	+5%	+9%

Source: Knight Frank

Source: Knight Frank | 12 month price change (H1 2015 – H2 2016)

The residential market witnessed an increased demand for mid & affordable housing as the economy showed recovery signs. However, a new supply remained low due to existing unsold inventory



Market Factors

FY15-16 Growth Trend

Reason

Demand		<ul style="list-style-type: none"> <li>The top eight cities observed a positive growth of 7% in H1 2016, as the number of units sold jumped from 126,615 in H1 2015 to 135,015 in H1 2016.</li> <li>Mumbai and Bengaluru had positive growth; however, NCR, Chennai and Kolkata reported negative growth in H1 2016.</li> </ul>
Supply		<ul style="list-style-type: none"> <li>H1 2016 witnessed the lowest number of new launches in the last three years across the top eight cities, as developers became cautious because of the huge unsold inventory that had been piling up since 2013.</li> <li>New launches reduced by 9% in the last six months, from 117,200 units in H1 2015 to less than 107,120 units in H1 2016.</li> </ul>
Capital Values		<ul style="list-style-type: none"> <li>Capital values remained stable in FY15-16 for most of the cities, except Delhi/NCR, where it declined, due to oversupply.</li> <li>Developers have restrained from announcing new projects due to large availability of unsold inventory.</li> </ul>
Noticeable Trends	<ul style="list-style-type: none"> <li>Developers focusing greatly on mid-segment housing</li> <li>Real Estate bill (draft) passed in Rajya Sabha</li> </ul>	<ul style="list-style-type: none"> <li>Developers primarily focused on mid-segment offerings, as around 68% of units launched in 1Q to 3Q of 2014 were for the mid-segment consumer.</li> <li>The newly passed Real Estate Regulation Bill (draft) is expected to bring increased transparency in the sector w.r.t project completion, rates charged etc.</li> </ul>

As for the residential market, new supply will decline due to existing unsold inventory. However, a small improvement in overall sales is expected on account of a rise in affordable housing demand.

*Residential Space Outlook for Next 6 Months*

Type	H2 2015	H2 2016 (E)	Growth
<b>New Launches</b>	126,865	115,332	-9%
<b>Sales</b>	141,341	146,336	4%

- Going forward, new launches are expected to drop by 9% YOY in H2 2016.
- NCR expected to lead this drop.
- Launches in NCR are expected to fall by 42% in H2 2016 compared to H2 2015.
- In terms of sales, H2 2016 is expected to maintain a 4% YOY growth.
- Cities such as Mumbai and Ahmedabad have witnessed a double digit growth rate.

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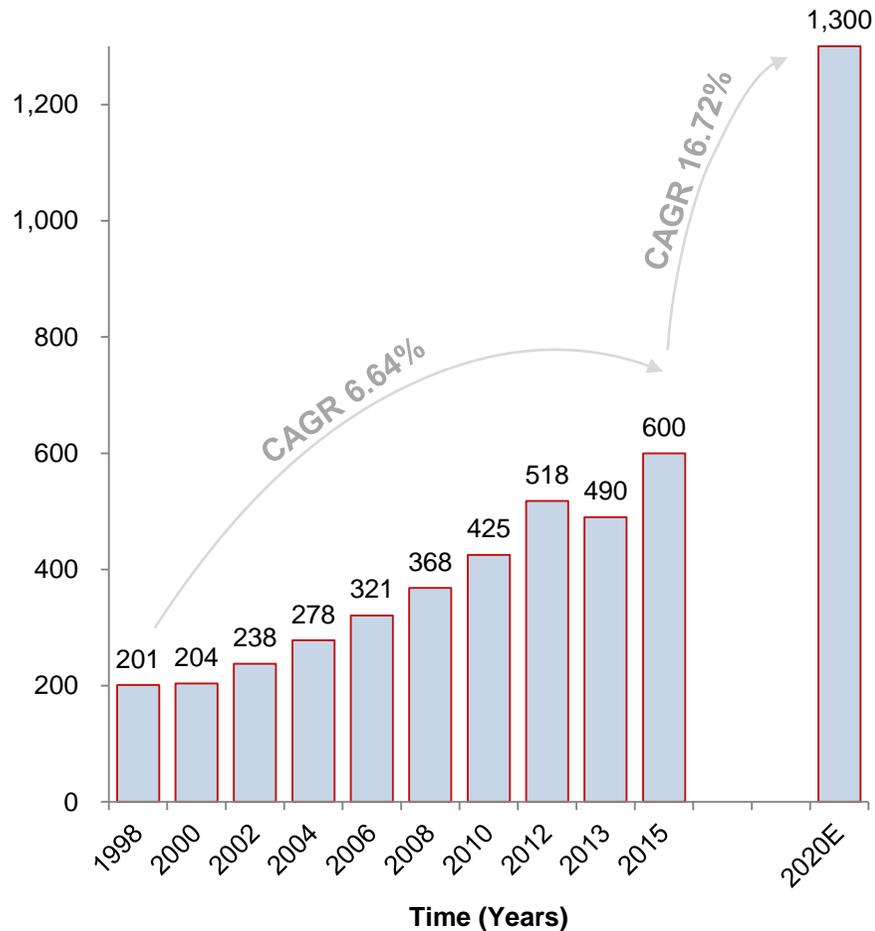
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Hotel Market

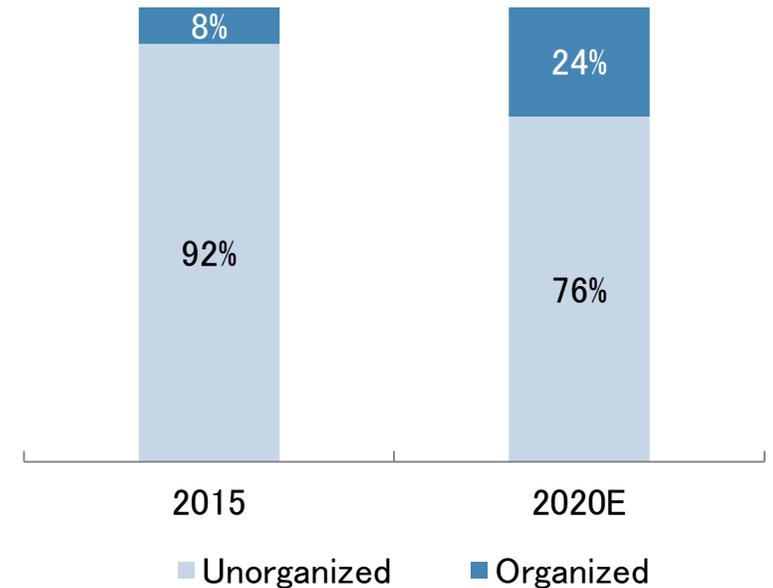
## Retail Space – Overall Outlook

The retail market is expected to more than double in size and become more organized by 2020 on account of rapid urbanization and rising disposable incomes.

Retail Market Size (US\$ Billion)



Type of Retail Market in India

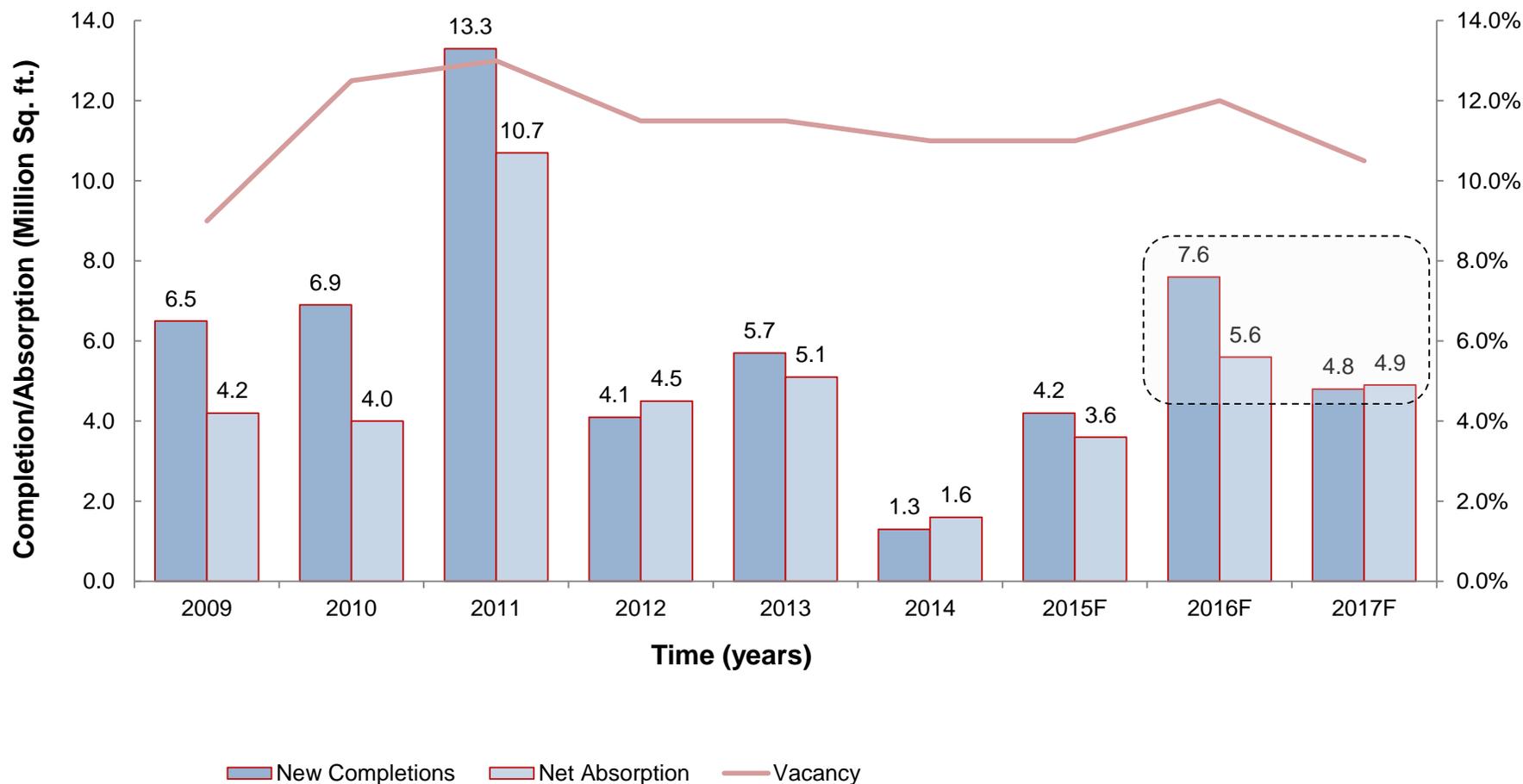


- Currently, India has over 15 million Mom and Pop stores (unorganized retail).
- From FY09 - FY13, organised retail in India has witnessed a CAGR of 19%-20%.

## Retail Space - Overall Outlook

Retail space is expected to pick up in FY16 and FY17 owing to a relaxation of sourcing norms. Also, the vacancy rate is expected to decline from 2016 onwards owing to robust demand.

Retail Space - Supply Demand trend



**Retail rental values have largely remained the same across all cities except for a marginal increase in Mumbai and Pune.**

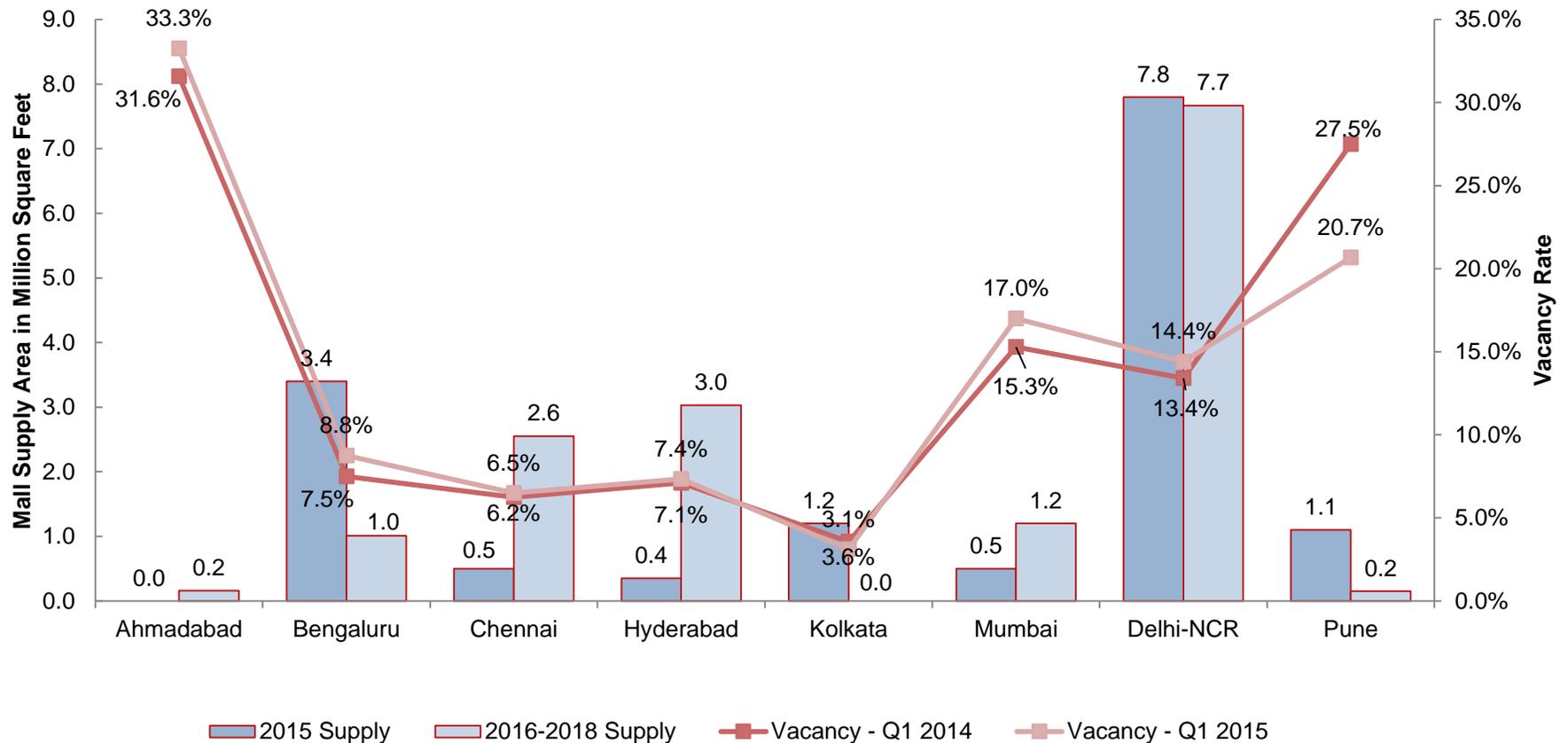
*Average Retail Values across major Indian cities (Central Business District for 2Q 16)*

City Name	Average Rental Value per sqft./month (INR)	Annual Rental Growth Rate (Q-o-Q)	Annual Rental Growth Rate (Y-o-Y)
Delhi/NCR	850	0%	0%
Mumbai	760	0%	1.3%
Kolkata	500	0%	0%
Chennai	150	0%	0%
Bengaluru	240	0%	0%
Hyderabad	130	0%	0%
Pune	320	0%	3.2%

Note: Values represented above are average for 2Q 16 for various cities from Cushman & Wakefield Local reports

Vacancy rates have increased in malls except for Pune. Delhi–NCR will be the most active market, as it will account for almost half of the total mall supply area coming up by 2018.

Upcoming Mall Supply Area and Current Vacancy Rate across Top 8 cities



The retail segment has witnessed an increasing demand for mall space due to rising consumerism. Rental values have increased marginally.

 Market Factors	FY15-16 Growth Trend	Reason
Demand		<ul style="list-style-type: none"> <li>• Growing consumerism, young population, increasingly brand conscious middle-class consumers and growing per capita income levels, will continue to drive demand for new retail spaces in India.</li> <li>• Demand for Grade A malls in Tier 2 and 3 cities is rapidly increasing.</li> </ul>
Supply		<ul style="list-style-type: none"> <li>• In the next 3 years, mall supply is going to increase slightly owing to the projects that were deferred earlier but will now be completed. Further, more than half of the upcoming mall supply in the next 3 years will be located in Delhi-NCR.</li> </ul>
Rental Values		<ul style="list-style-type: none"> <li>• Mall rentals have marginally increased across the Top 8 cities of India.</li> <li>• Only in Pune, rentals have increased significantly, as retailers are increasingly occupying vacant spaces.</li> </ul>
Noticeable Trends	<ul style="list-style-type: none"> <li>• E-commerce impact on offline retail spaces</li> <li>• Convergence of Office and Retail</li> </ul>	<ul style="list-style-type: none"> <li>• E-commerce in the midterm may negatively impact retail spaces in Tier 1 cities.</li> <li>• Office-Retail Complexes (ORC) are coming up owing to the evolving consumer demand; however, this trend is currently limited to Tier I cities of India, namely Mumbai, Delhi-NCR, and Bangalore.</li> </ul>

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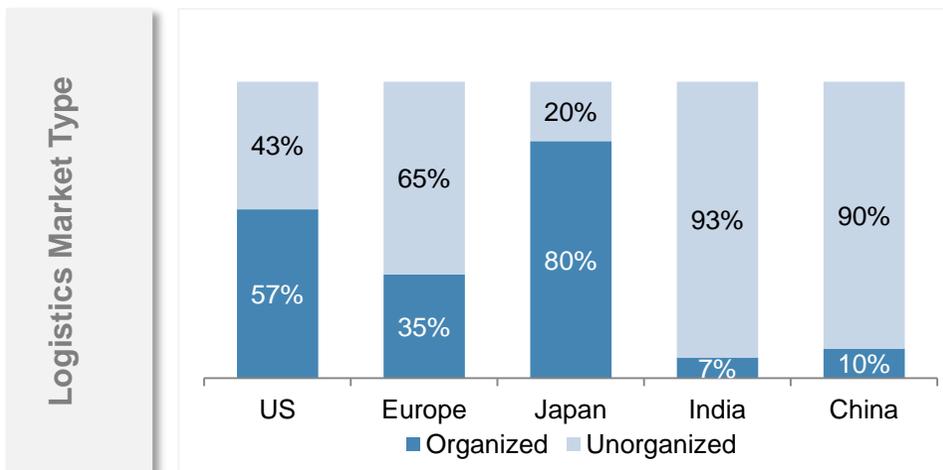
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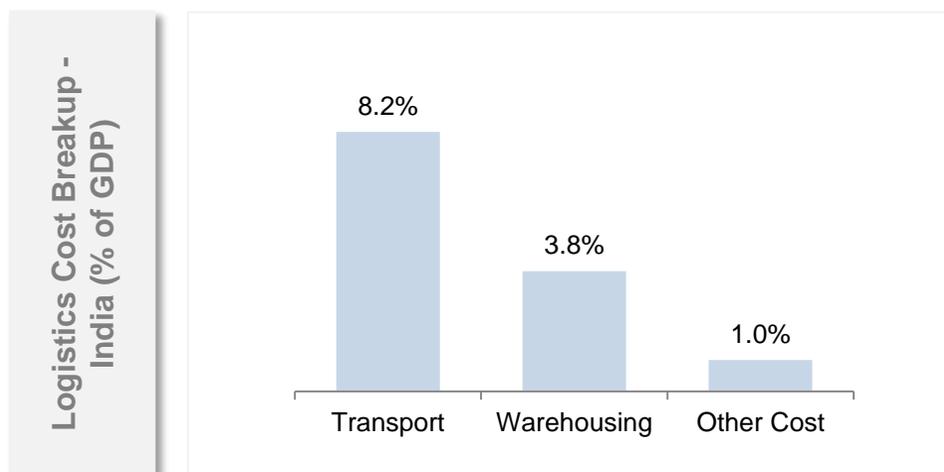
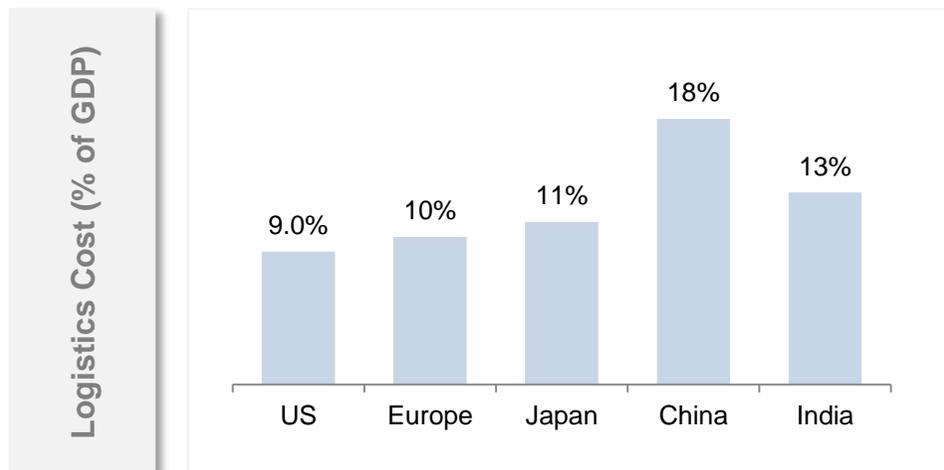
Hotel Market

# India's logistic market is highly unorganized and current logistics costs are significantly higher in India when compared to Global peers

Logistics market and key players



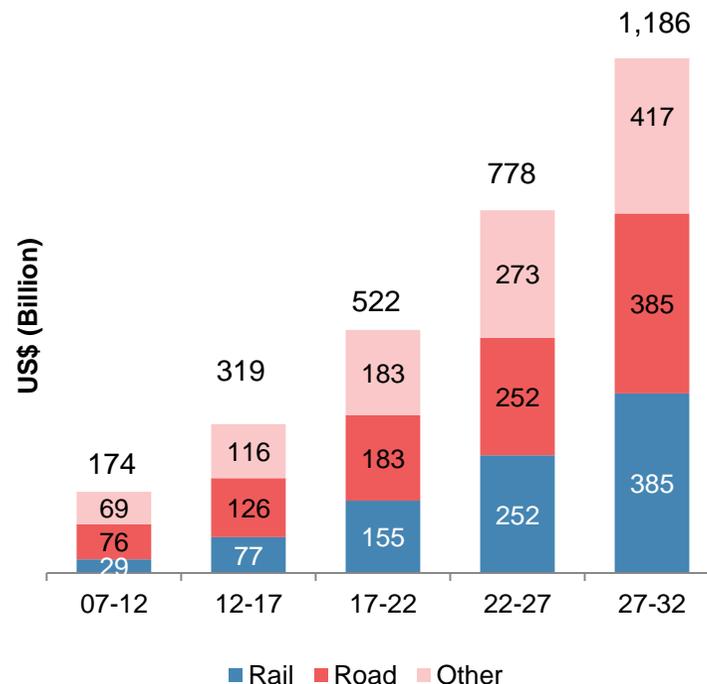
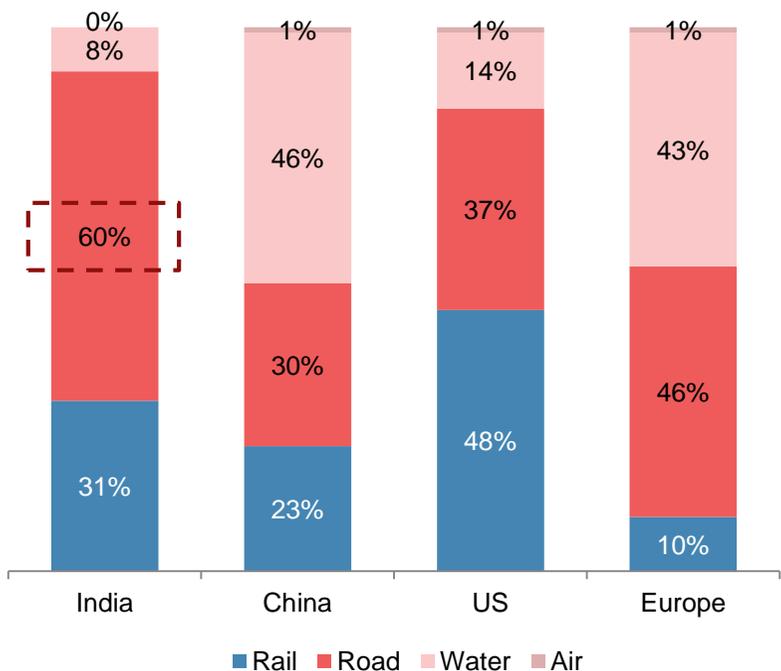
Logistic Cost



Logistics is mainly dependent on roads in India, unlike distributed load in other countries. Further, in the next 15 years, India is planning huge investments in transport infrastructure.

Transport Mode Share in India

Expected Capex Investment in Transport Infrastructure

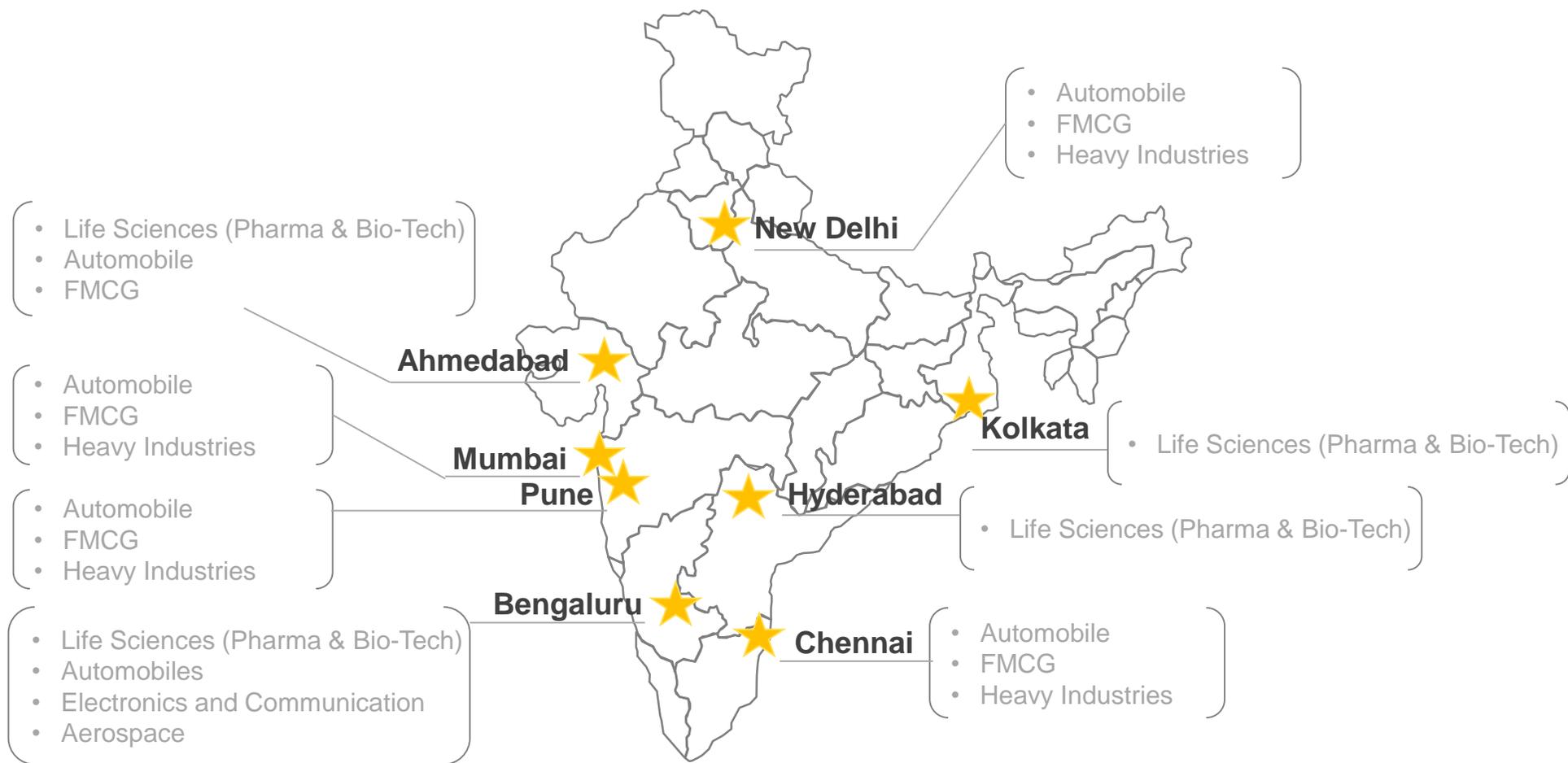


- In the last two decades, underinvestment in railways in India has increased the road sector (relatively inefficient transport mode) share to 60% vs 30-46% in other regions.

- In the next decade (FY17-27), a more than 1,300 billion dollar investment is expected to be made in Transport infrastructure.
  - The Rail Sector is expected to receive up to 33% share of the investment.

India's manufacturing footprint and consumer markets are spread across the country, thus the rising need for domestic trade corridors and logistics hubs.

India's Manufacturing Footprint and Major Markets



## Major Domestic Trade Corridors and Logistics Hubs



### Major Domestic Trade Corridors

Delhi-Kolkata	1,452 kms
Chennai-Mumbai	1290 kms
Kolkata-Chennai	1,684 kms
Mumbai-Delhi	1,419 kms

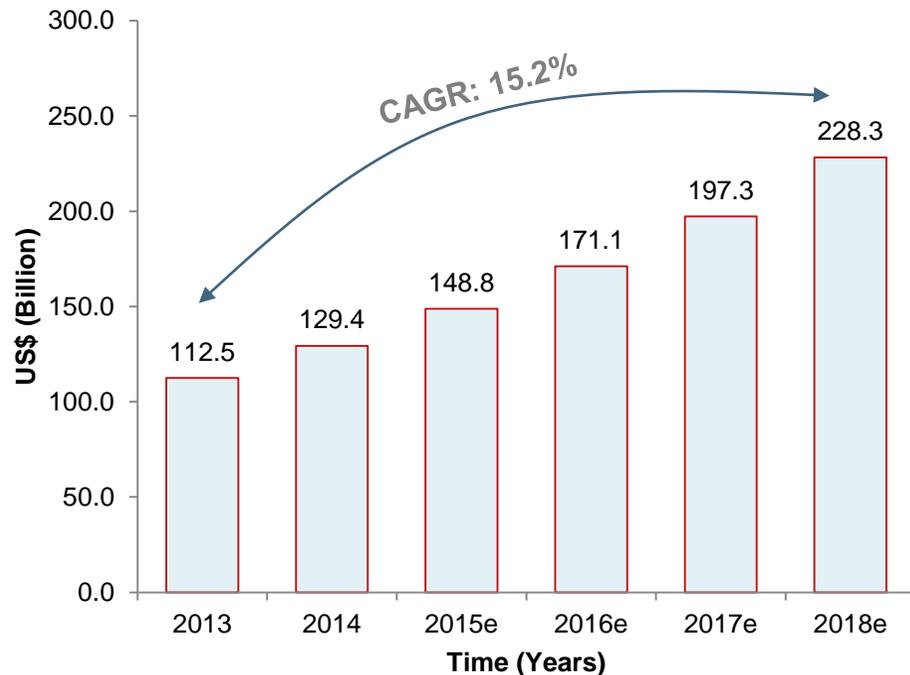
### Established & Growing Logistics Hubs

Delhi-NCR	Kolkata
Mumbai	Hyderabad
Chennai	Pune
Bengaluru	
Ahmedabad	Thiruvananthapuram
Surat	Jaipur
Goa	Vadodara
Chandigarh	Nashik
Kochi	Indore
Visakhapatnam	Mangalore
Nagpur	Ludhiana
Coimbatore	Guwahati

## India lacks a high quality storage infrastructure; however, the warehousing industry is going to get a major boost with the recent passing of the GST bill.

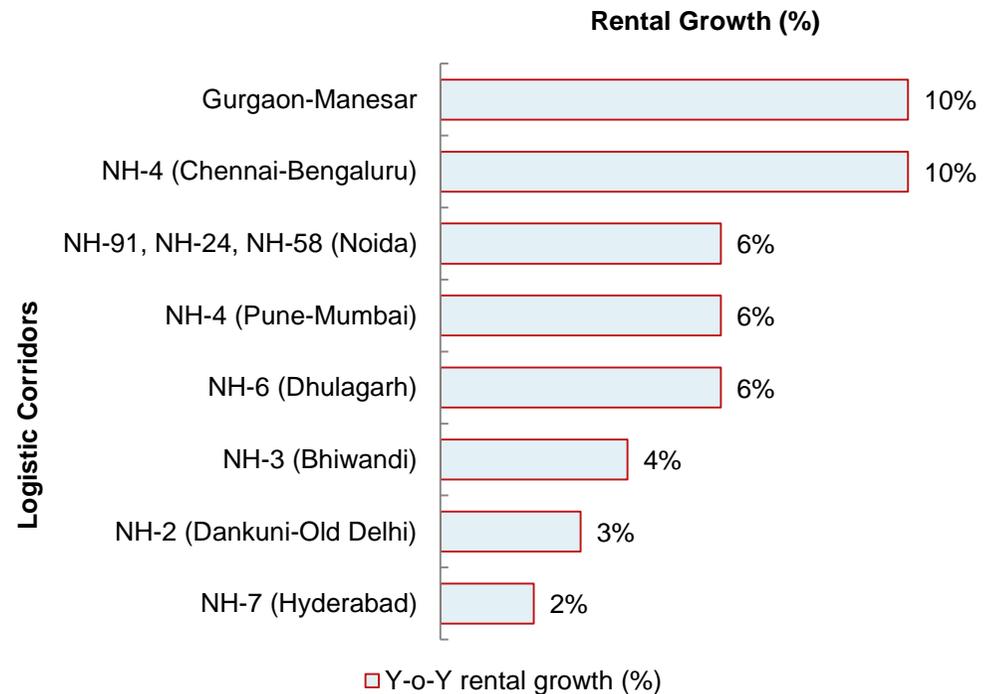
- Rentals of warehousing spaces across major industrial corridors are growing at an average of 5% per annum.
- Gurgaon-Manesar and Chennai-Bengaluru routes have shown double digit appreciation in rentals.
- With the recent passing of the GST bill and subsequent ratification by more than 50% of the states, GST is all set to become applicable by FY 2017. The passing of GST will lead to the emergence of regional warehousing hubs and an increase in the quality of warehouses.

Warehousing Market Size



Source: Netscribes Report 2012 | USD 1 = INR 60

Warehousing Space Rental Growth Trends



Source: Content sourced from proprietary information of Jones Lang LaSalle India

**Logistics space rental and land prices are increasing moderately across major industrial corridors of the country.**

*Average Logistics space price across major Industrial corridors*

Major Logistics hubs	Major Industrial Corridors	Major Industry clusters	Average Rental Value per sqft./month	Average Land Value per sqft.	Price Trend
Ahmedabad	Ahmedabad-Vadodara Highway	FMCG	INR 10 – 15	INR 300 – 550	Slight Increase
Bengaluru	Tumkur Road (Peenya corridor)	Pharma, Engineering	INR 25 – 30	INR 1600 – 2100	Increasing
	Hoskote Road	Engg, Auto, Pharma, Electronics	INR 14 – 16	INR 400 - 500	Slight Increase
Chennai	GT Road	Auto, Textiles, FMCG	INR 18 – 22	INR 800 – 1500	Increasing
	Sriperumbudur	Auto, FMCG, Engg, Hardware	INR 20 – 26	INR 450 – 550	Slight Increase
Delhi / NCR	National Highway 1	FMCG, Metal, Food Processing	INR 14 – 20	INR 450 – 1150	Slight Increase
	National Highway 2	Auto, Heavy machinery, Metal	INR 20 – 40	INR 1100 - 4500	Slight Increase
Hyderabad	Nagpur Highway	Pharma, Biotech	INR 10 – 16	INR 350 – 450	Slight Increase
Kolkata	National Highway 6	FMCG, Ferro Alloys	INR 14 – 18	INR 350 – 500	Slight Increase
Mumbai	Mahape	Chemical, Pharma, Electronics	INR 40 – 50	INR 2000 – 2700	Slight Increase
Pune	Chakan	Auto, Heavy engineering	INR 25 – 30	INR 450 – 800	Increasing

Note: Values represented above are during Jul'14 and for indicative purposes only. Actual values may vary by time, specific locality area, property specifications and other factors.

The logistics sector is set to get a big boost with the passing of the GST bill as well as a rise in demand due to the e-commerce boom and a general rise in domestic consumption.

 Market Factors	FY15-16 Growth Trend	Reason
Demand		<ul style="list-style-type: none"> <li>• With e-commerce booming in India, the demand for warehousing space near large local markets has increased significantly.</li> <li>• Rising domestic consumption has also led to demand for warehousing space.</li> </ul>
Supply		<ul style="list-style-type: none"> <li>• The recent passing of the GST bill renews new hope for the supply side of the logistic sector. It will lead to a more optimal warehousing structure and emergence of regional warehouse hubs.</li> </ul>
Rental / Capital Values		<ul style="list-style-type: none"> <li>• Rental / Capital values of warehousing spaces across major industrial corridors witnessed a positive trend as land values kept rising and supply decreased.</li> </ul>
Noticeable Trends	<ul style="list-style-type: none"> <li>• Domestic SEZs catching speed</li> <li>• Demand of temperature controlled warehouses</li> <li>• DMIC to increase warehousing supply</li> <li>• Tech Based Supply Chain for Tier II &amp; III cities</li> </ul>	<ul style="list-style-type: none"> <li>• Difficulty in setting up 100% export-based SEZ units due to locational and other regulations is enabling a demand for domestic-based SEZ spaces.</li> <li>• Specialized storage requirements for chemicals in the F&amp;B category has created an increasing demand for temperature controlled warehouses.</li> <li>• DMIC (note) will comprise of 13 industrial areas driving warehousing supply.</li> <li>• Tech-based solutions already applicable in metro cities will further penetrate into Tier II &amp; III cities.</li> </ul>

## India

Economic growth improves broad domains in real estate.

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Macro Fundamentals

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Real Estate Market Overview

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Office Market

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Residential Market

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Retail Property Market

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Logistics Property Market

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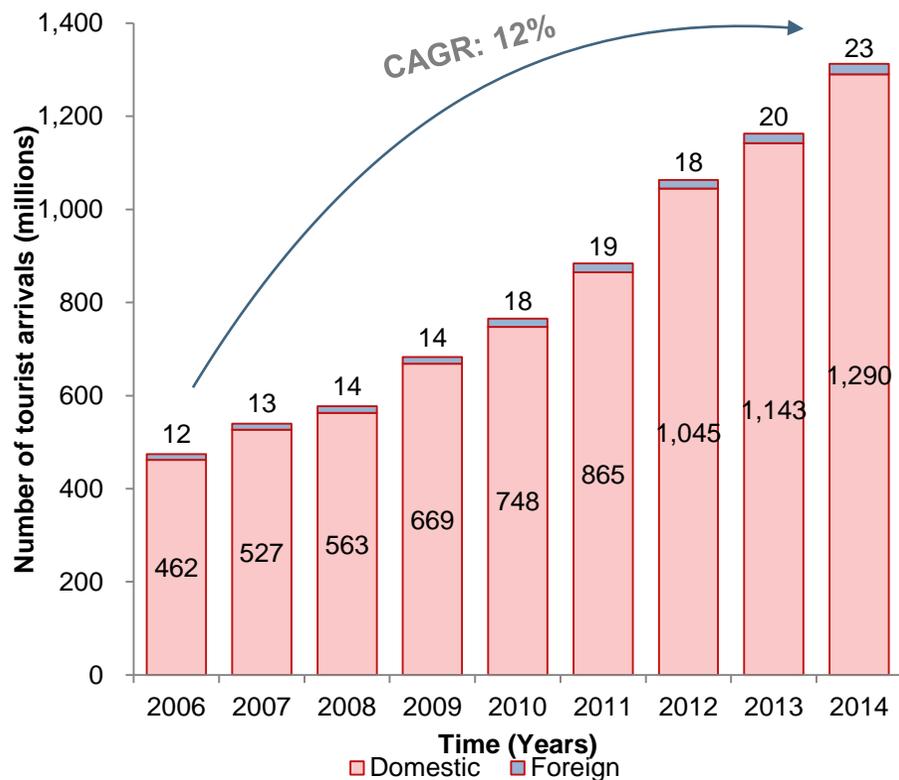
Hotel Market

The travel and tourism industry is growing steadily but requires high quality infrastructure support to be competitive globally.

<b>India's Position in the World</b>	<b>By Industry Competitiveness</b>	<b>65th</b>	<b>By Hotel Infrastructure</b>	<b>67th</b>	<b>By Foreign Tourist Arrivals</b>	<b>42nd</b>
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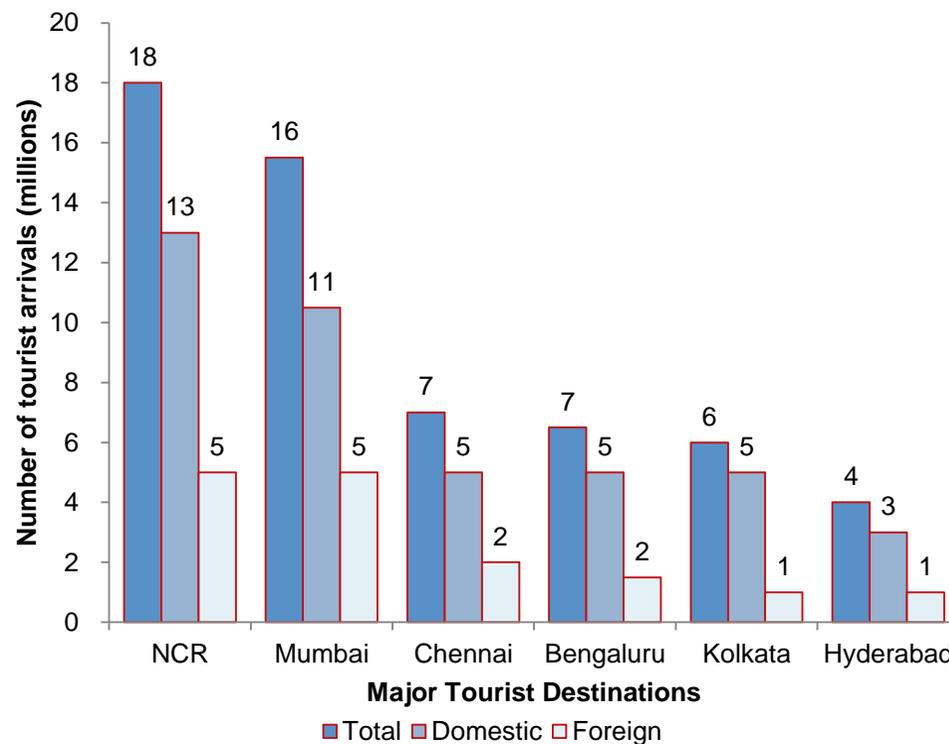
Source: Travel and Tourism Competitiveness Report 2013

Domestic and Foreign Tourist Arrivals



Source: Ministry of Tourism

Top 6 cities in Tourist Arrivals by Air

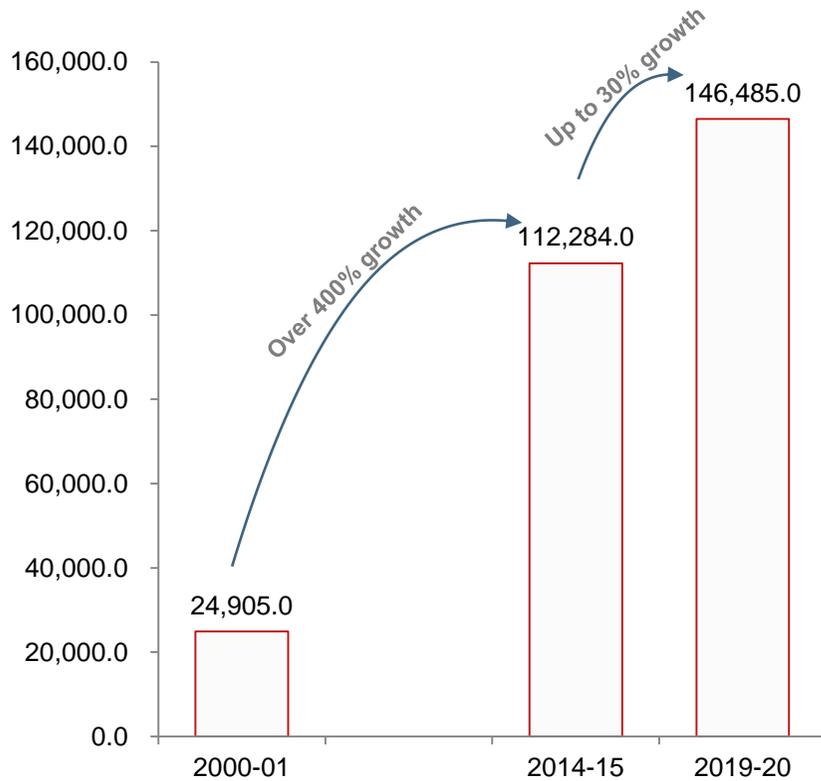


Source: Airports Authority of India

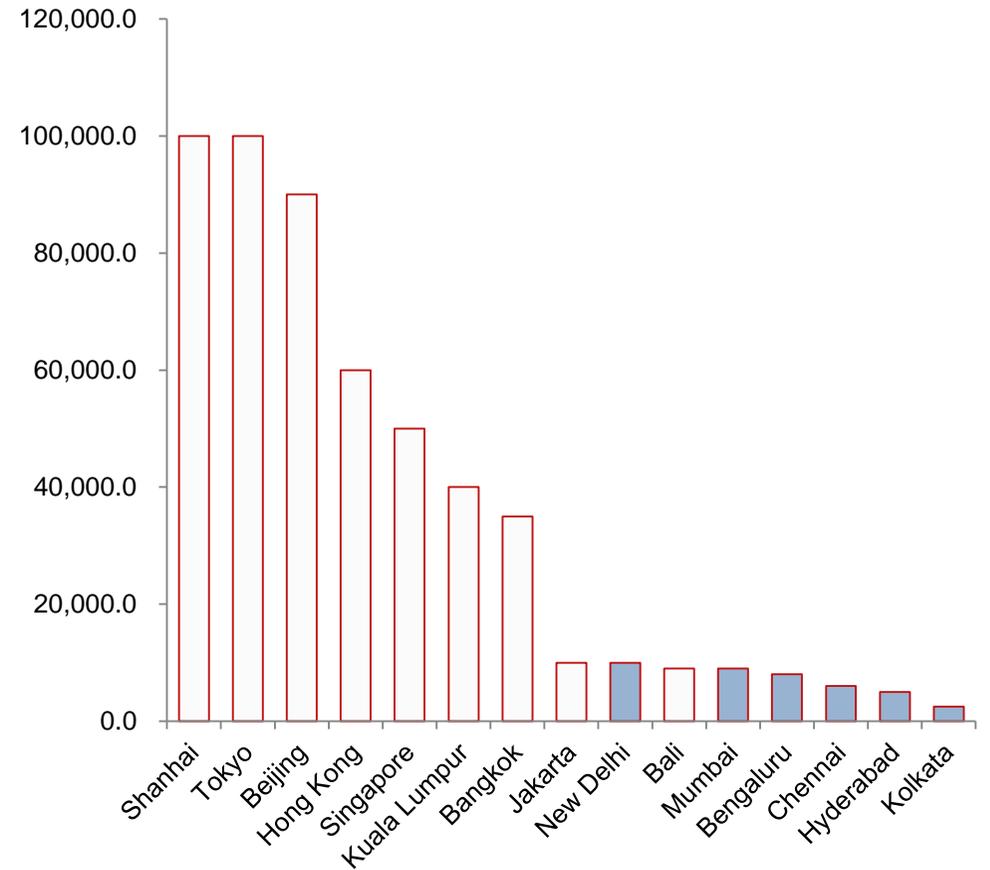
## Hospitality Space – Present and Upcoming Inventory

Although hospitality space inventory has grown by over 400% in the last 15 years, the amount of branded inventory in India is quite low in comparison to other Asia Pacific Cities.

*Growth of Room Supply - India*



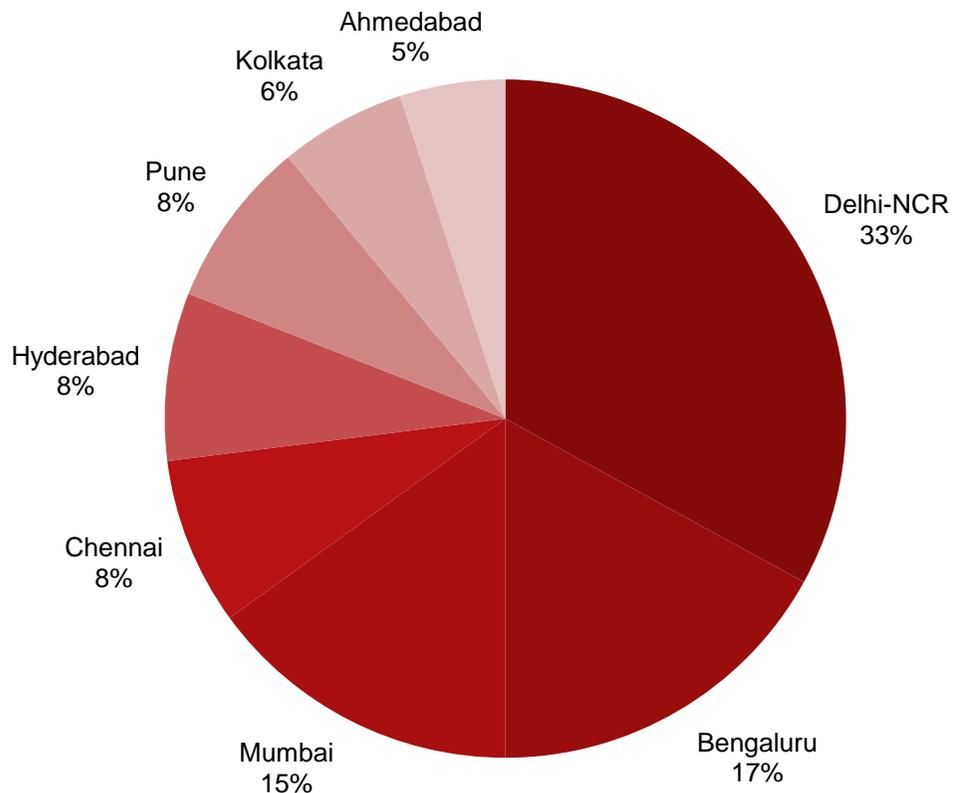
*Brand Inventory across Select Asia Pacific Cities*



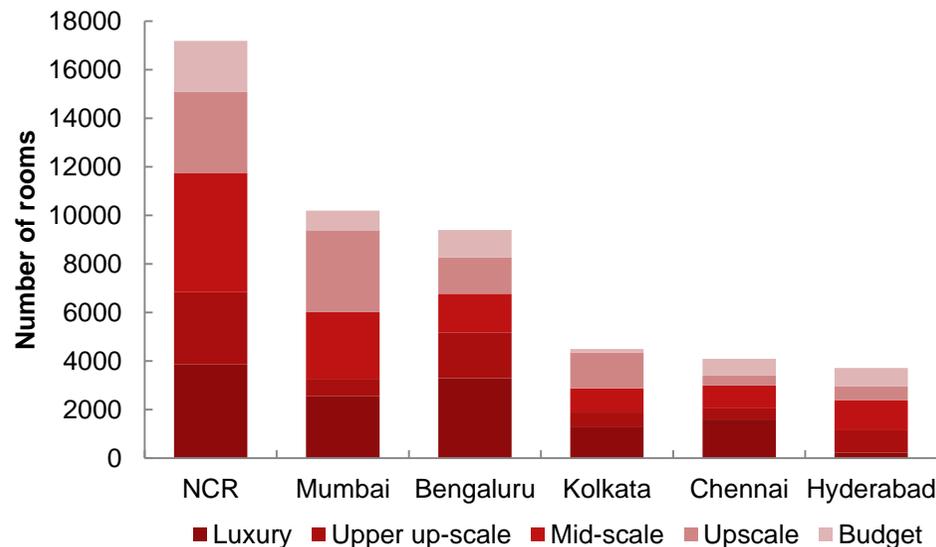
Source: Hotels in India, Trends & Opportunities, HVS, 2015

## Delhi, Mumbai and Bengaluru lead in both existing as well as upcoming hospitality space across major Indian cities.

Organized Hotel Inventory across major cities in 2014



Hotel Inventory across major cities [2013-17]

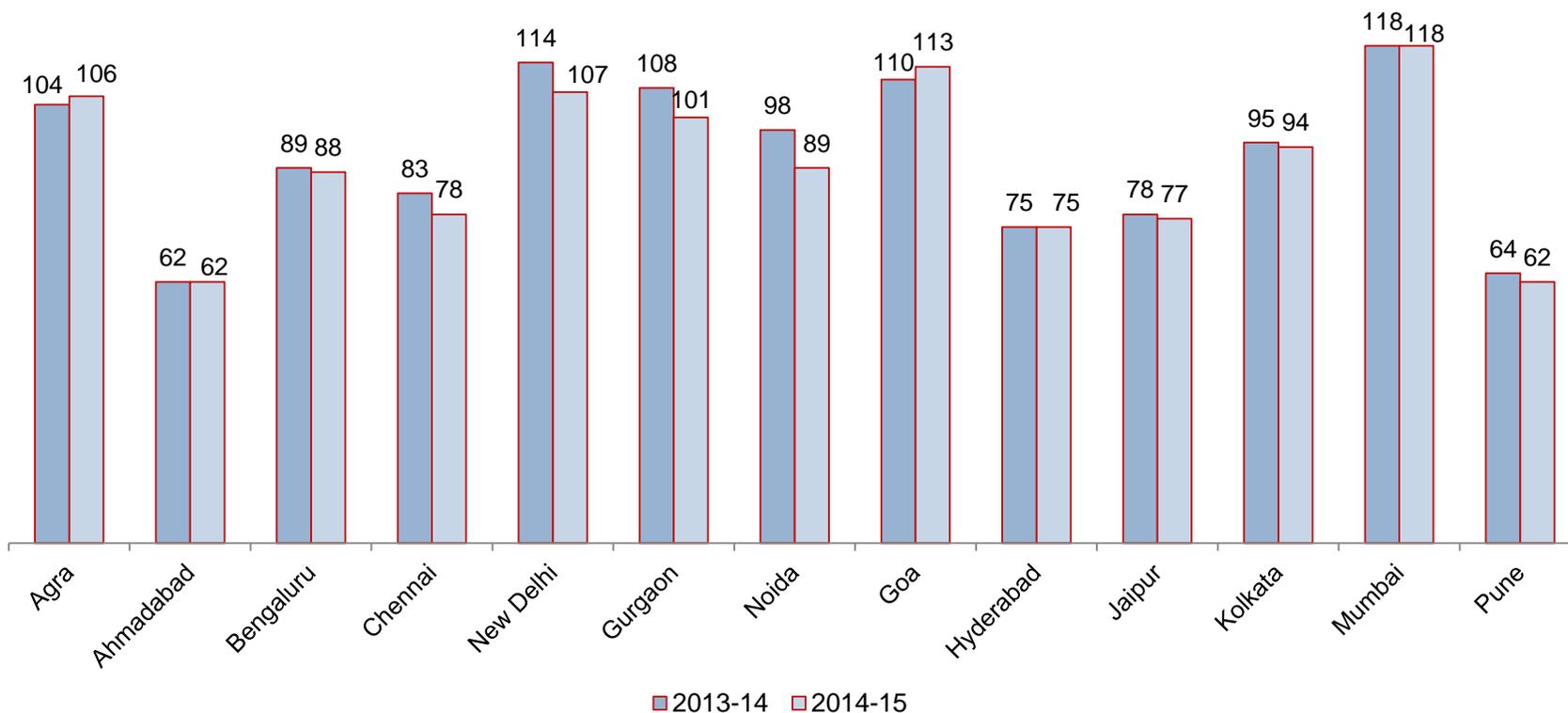


Star Rating	5 Star	5 Star	4-5 Star	3-4 Star	2 Star or less
Room size	>=38	>=38	35-38	25-35	<25
Restaurant	>=3	>=3	1-2	1-2	Only 1
Bar/Lounge	>=2	1-2	Only 1	Only 1	1 or none
Swimming Pool	Yes	Yes	Yes	Yes	No mandate
Gym	Yes	Yes	Yes	Yes	No mandate
Spa	Yes	Yes	Yes	Yes	No mandate
Concierge Service	Yes	Yes	Yes	No mandate	No mandate
Branded Toiletries	Yes	Yes	No	No	No
Trademarked Beds	Yes	Yes	Yes	No mandate	No
Interior Quality	Yes	Yes	Yes	No mandate	No

Source: Cushman & Wakefield

Average room rates across major cities have slightly declined or remained the same in the past year due to increased supply and the quest for maintaining occupancy.

Key Operating Characteristics by Major Cities – Average Room Rate (US\$)

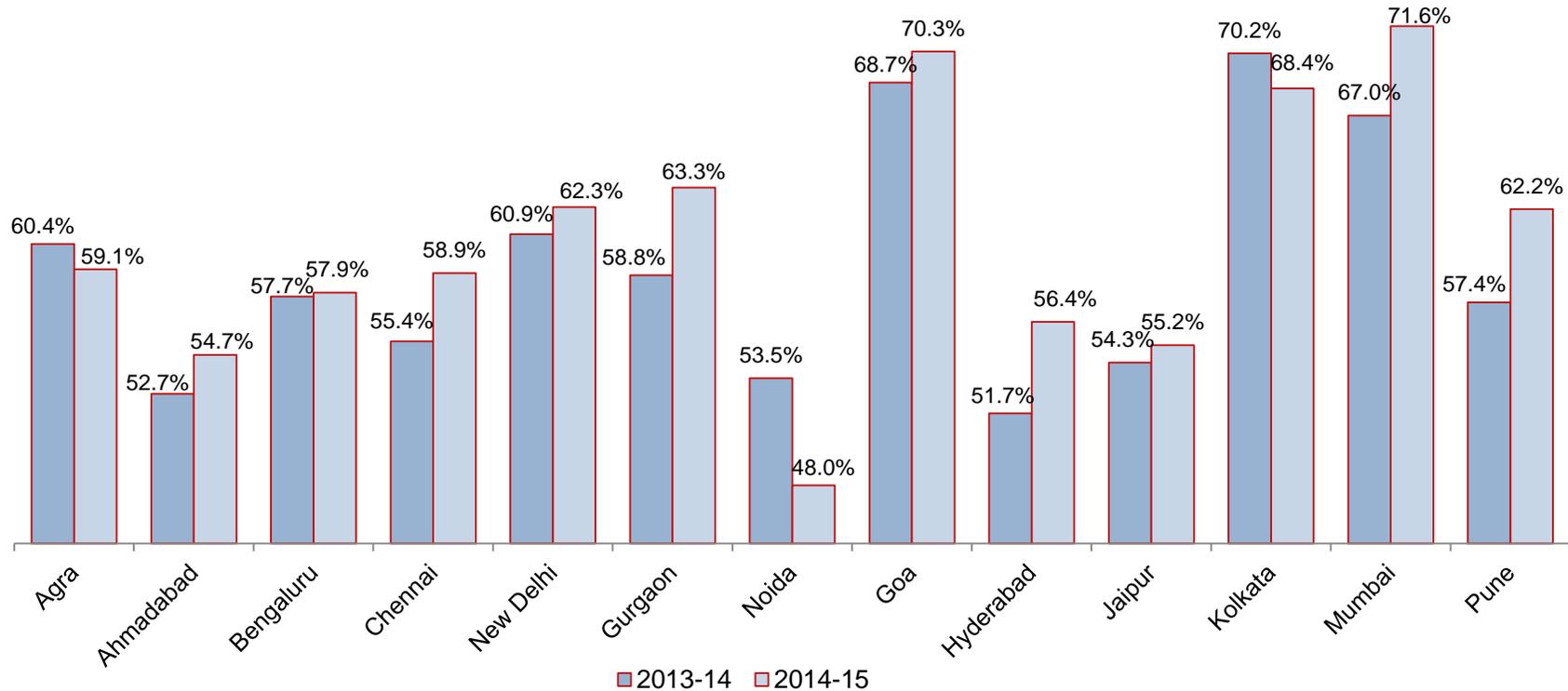


Source: Hotels in India, Trends & Opportunities, HVS, 2015

## Hospitality Space – Key Operating Characteristics

Occupancy rates have increased across all major cities with the exception of Noida, Kolkata and Agra.

Key Operating Characteristics by Major Cities – Occupancy Rate



Source: Hotels in India, Trends & Opportunities, HVS, 2015

Hospitality space demand continued to grow, with an increasing supply of hotel spaces. As a result, room rates have remained largely stable due to increasing local competition.



Market Factors

FY15-16 Growth Trend

Reason

Demand		<ul style="list-style-type: none"> <li>Between 2015 and 2019, domestic and inbound travels projected an average annual growth of 9.7% and 8.4% respectively.</li> <li>The average occupancy rate across the Top 8 cities has improved, indicating increasing demand for hospitality space.</li> </ul>
Supply		<ul style="list-style-type: none"> <li>The Top 8 cities are expected to add over 44,000 new keys by 2018, with Delhi and Mumbai accounting for 51% of the new supply.</li> <li>Overall, the supply stock across all major cities has grown, with Delhi having the highest y-o-y growth of 16.5% in supply.</li> </ul>
Average Room Rates		<ul style="list-style-type: none"> <li>Average room rates across most metro cities have remained the same or slightly declined over the last year, since increased supply amplified competition and the quest for maintaining occupancy.</li> <li>Overall average occupancy across all segments stood at 60.3%, the highest since 2010-11.</li> </ul>
Noticeable Trends	<p>Domestic tourism to greatly drive hospitality space demand in India</p>	<ul style="list-style-type: none"> <li>The depreciating rupee is likely to further boost domestic tourism, as overseas leisure trips become more expensive.</li> <li>As a result, demand for mid-high end hotel spaces may likely increase in the near-term future.</li> </ul>

<b>China</b>	Indeterminacy of market is rising cause of facing transition stage.
<b>Korea</b>	Residential and Real Estate Investment are stable although economic stagnation.
<b>Taiwan</b>	Integration within Greater China brings satisfactory in Hotel domain.
<b>Singapore</b>	Wider domains keep favorable, but residential and commerce show signs to weaken.
<b>India</b>	Economic growth improves broad domains in real estate.
<b>Russia</b>	Residential remains stable in spite of largely affected by devalued currency.

## Russia

Residential remains stable in spite of largely affected by devalued currency.

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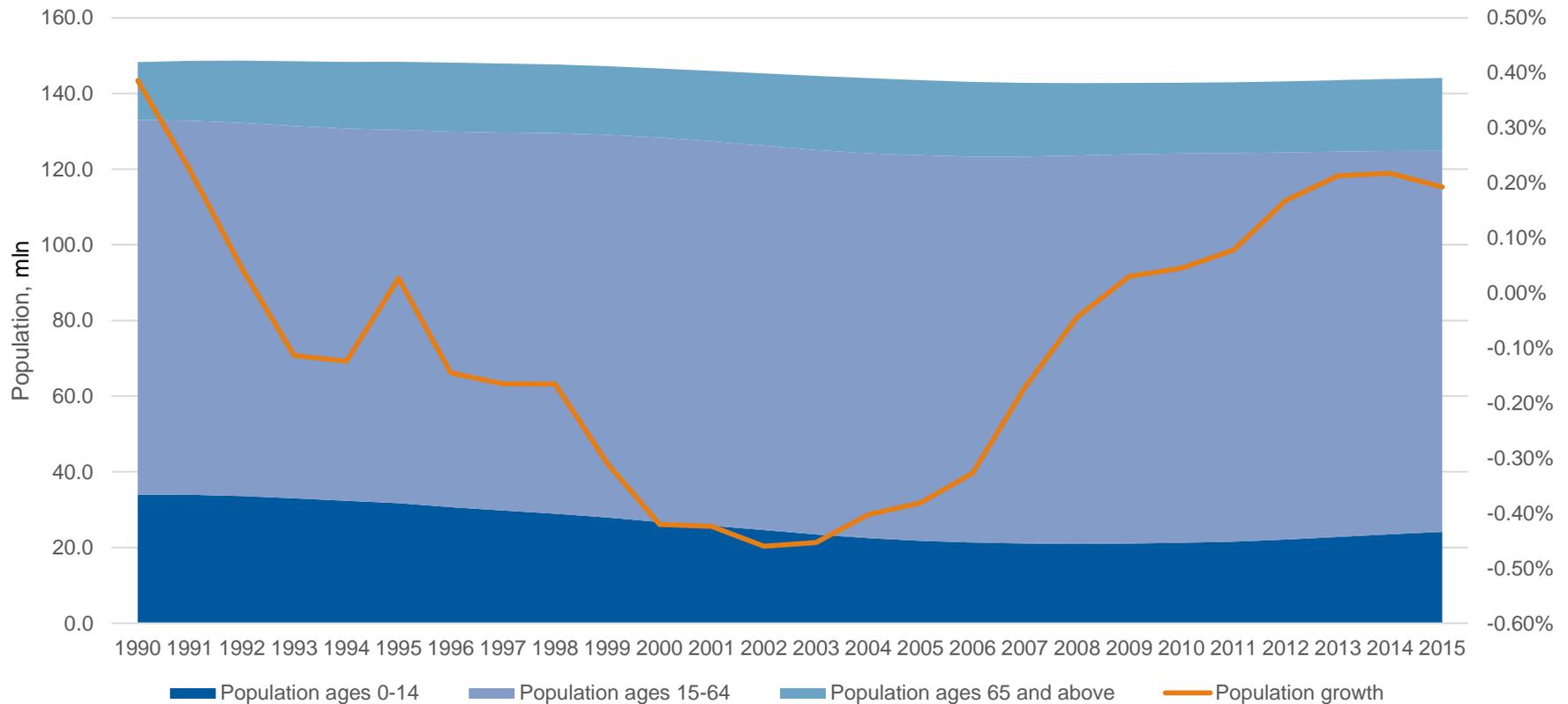
Retail Market

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Hotel Market

## Population growth in Russia is stagnating

- The population of the Russian Federation has stagnated over the past 25 years, slightly exceeding 140 million people.
- The population growth rate was negative during the 1993 – 2008 period.

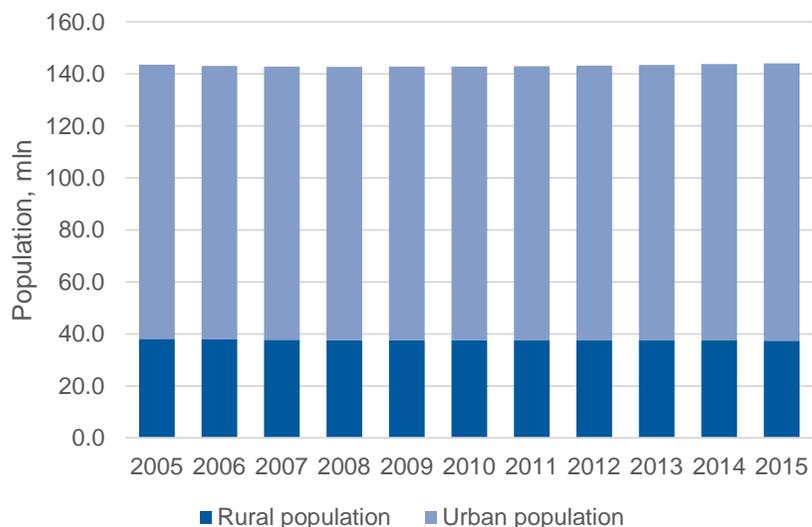


Source: World Bank

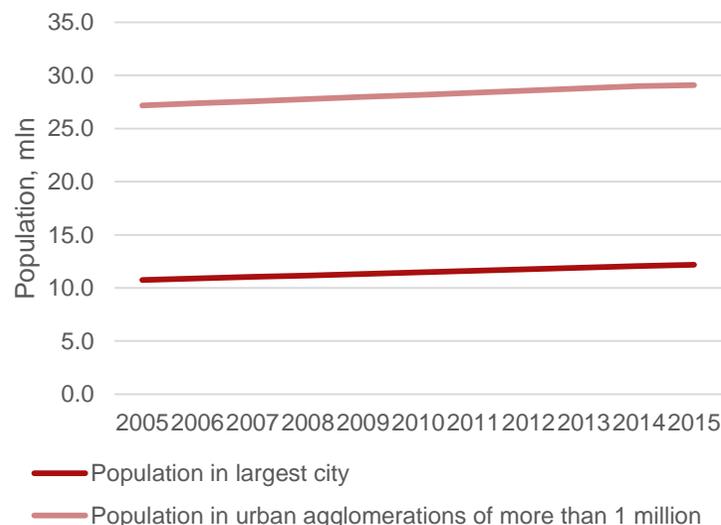
## Overall “rural vs. urban” structure is stable.

- Almost 75% of the population live in the urban areas and this share is slowly growing. Especially, almost 30% of the population live in the large agglomeration areas.
- Approximately 12% of population live in the largest city of the country (Moscow) and this share is also slowly growing.

### Rural vs. urban population



### Population of largest agglomeration



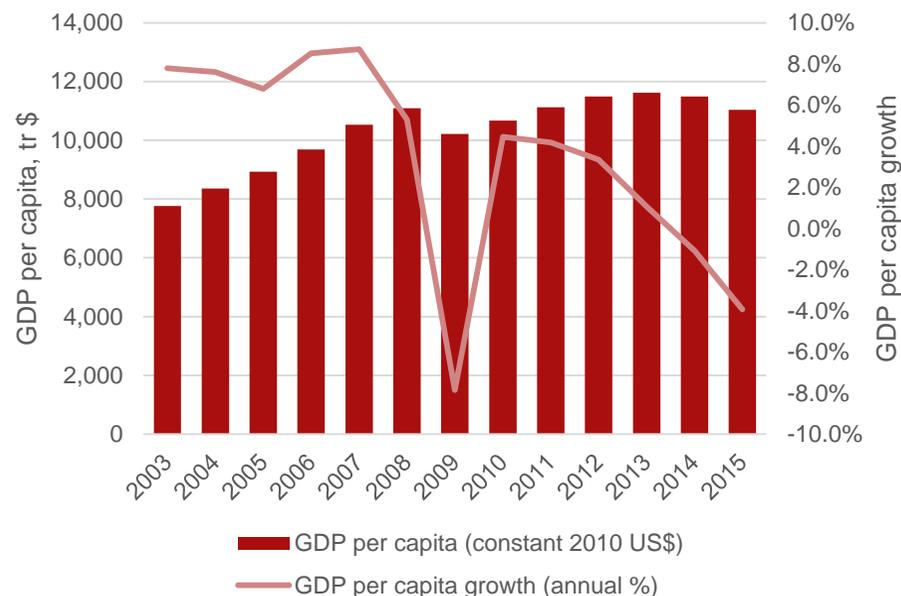
# Russia overall economy trends. GDP fell by 4% in 2015 and has not recovered since then

- Russia's economy has been stagnating since 2012 and it has been in recession over the past 2 years (-4% of GDP in 2015)
- Forecasts are not very optimistic; for example, IMF expects no more than 1.5% growth until 2021.

GDP trends



GDP per capita trends

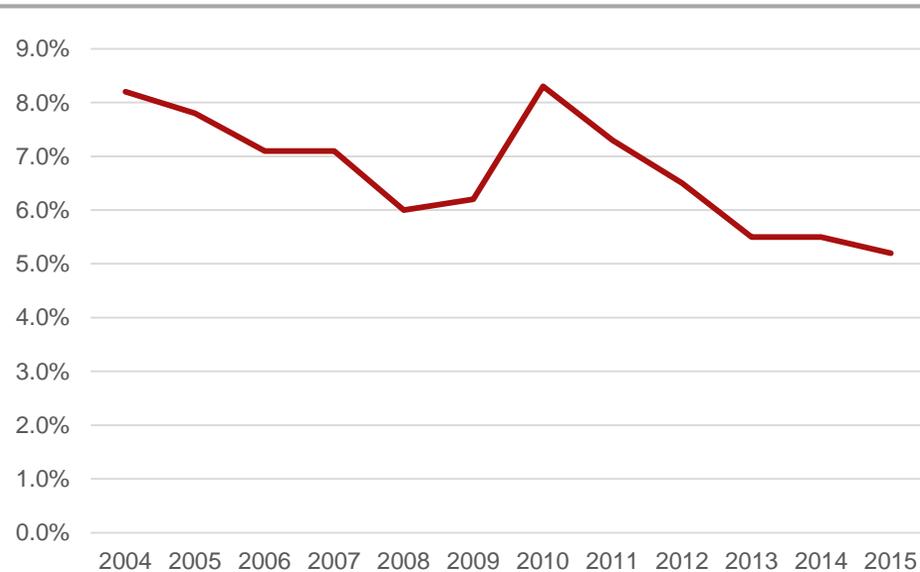


## Russia macroeconomic conditions

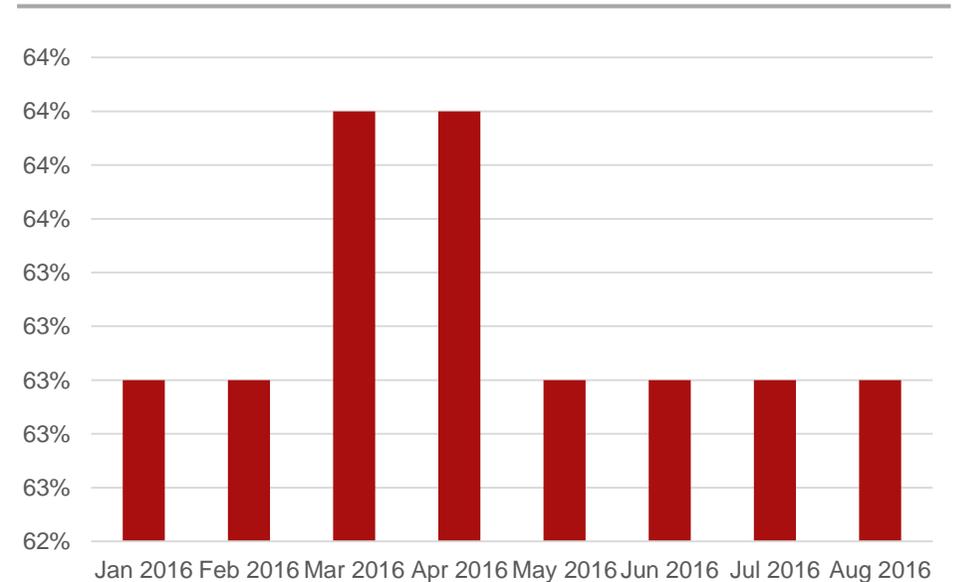
**Russia overall economy trends. The unemployment and capacity utilization rate do not show any sign of adverse shock.**

- Since the unemployment rate is quite low and the capacity utilization rate remains high, it seems that the current crisis has been caused by inefficient government institutes (not by adverse shock).

*Unemployment rate*



*Capacity utilization rate*

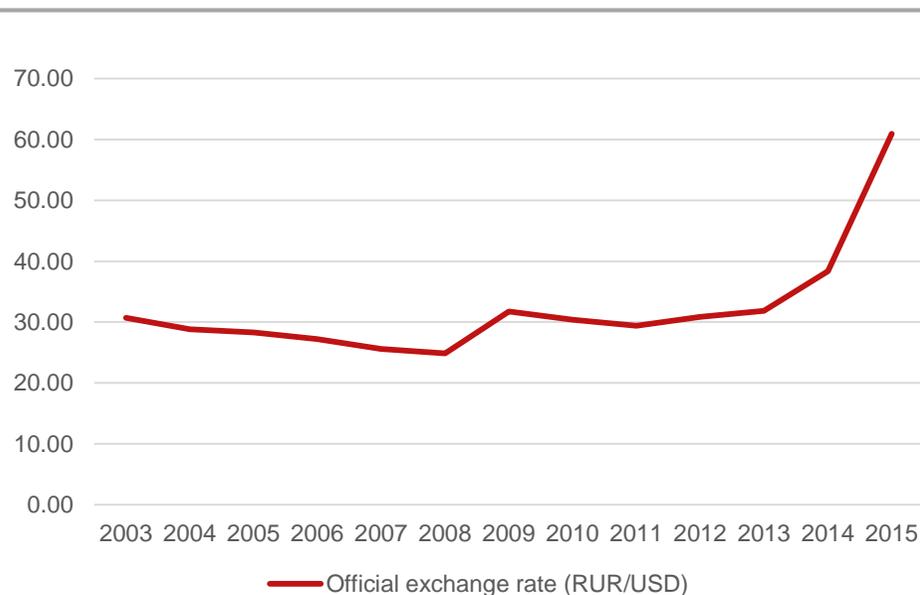


Source: World Bank, <http://www.tradingeconomics.com/>

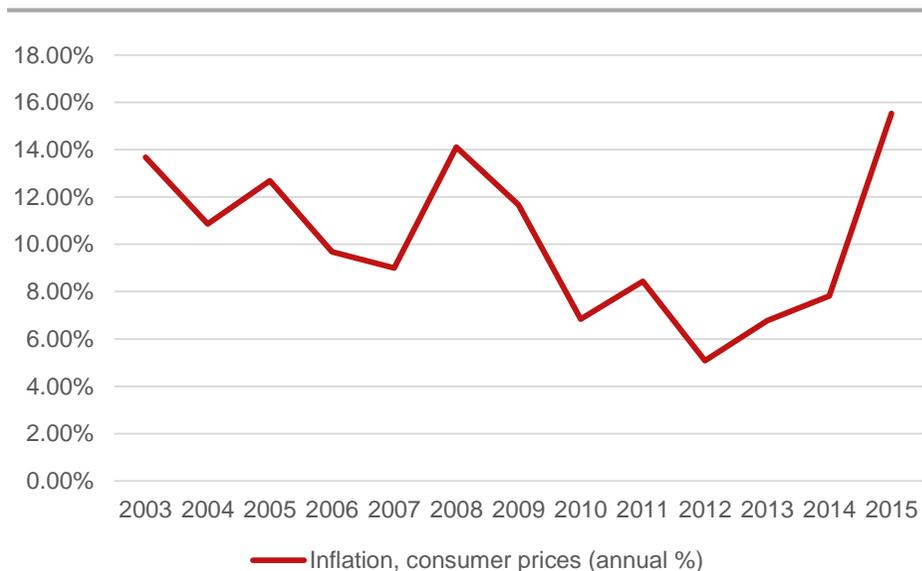
## Russia overall economy trends. The inflation rate rose sharply due to ruble devaluation.

- Massive devaluation of national currency in 2014-2015 led to a sharp rise in inflation (more than 15% annually).
- Stabilization of the exchange rate and successful actions of the central bank led to lower (single digit) inflation in 2016.
- Consensus opinion is that the central bank will succeed in fighting against inflation and the forecast is 4% since 2019 (IMF).

*Exchange rate trend*



*Inflation rate*

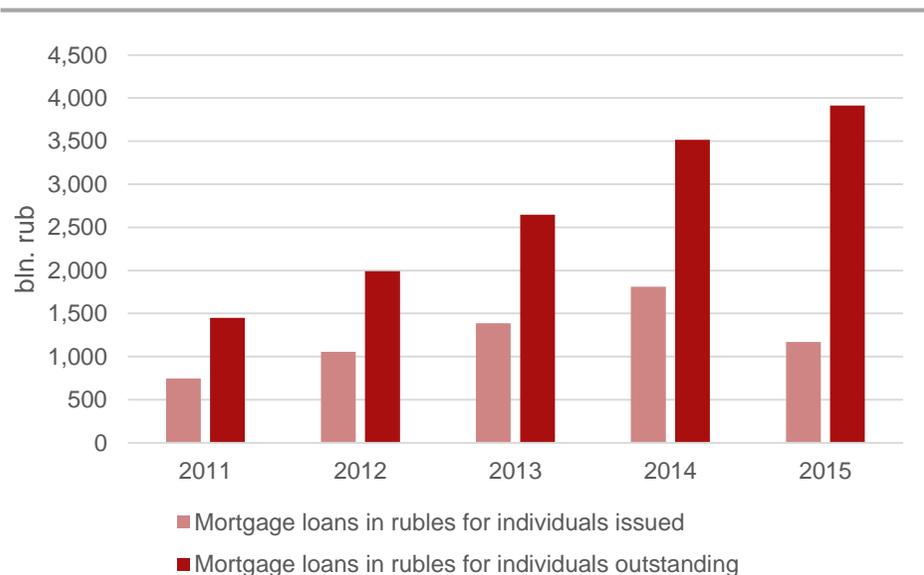


Source: World Bank

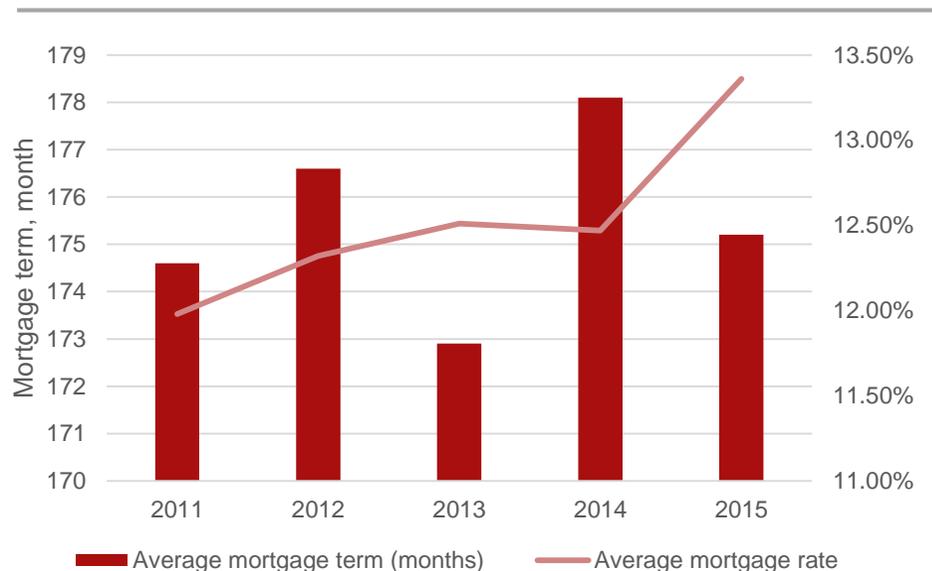
## Russia overall economy trends. Mortgage financing for individuals is well-functioning.

- The amount of mortgage issued had been growing from 2011 to 2015 when it fell due to an economic downturn.
- The mortgage rate was growing significantly due to high inflation and high risks.
- Nevertheless, the mortgage market is still functioning well partially due to government support.

*Mortgage issued and outstanding*



*Mortgage term and rate*



Source: Bank of Russia

## Russia

Residential remains stable in spite of largely affected by devalued currency.

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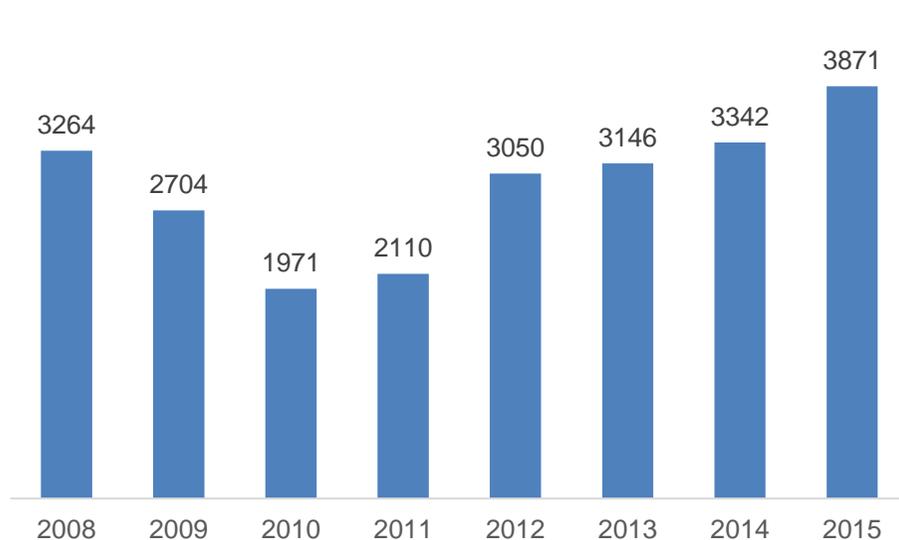
5

Hotel Market

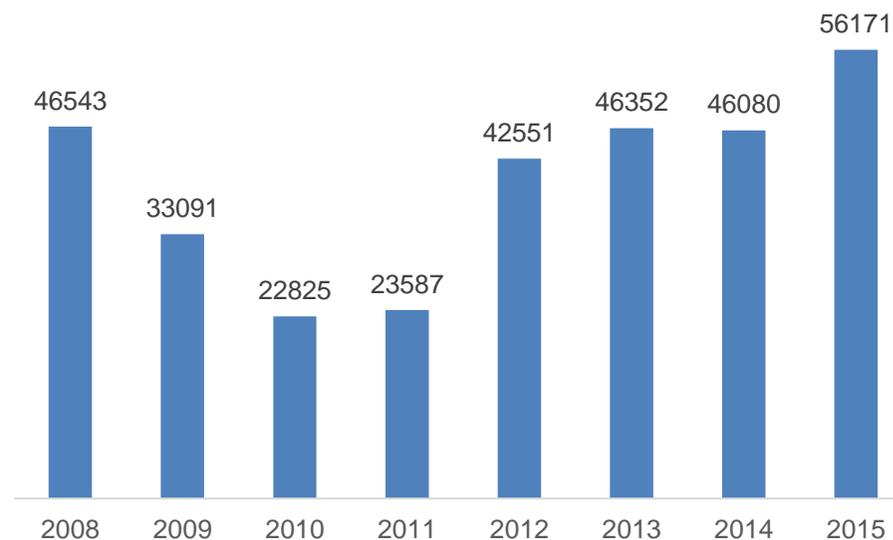
## The supply of new houses in Moscow has enjoyed stable growth since 2010.

- In 2015, the number of commissioned flats and their total area exceeded the figures of 2014 by 21% and 15% respectively.
  - Such positive dynamics can be explained by the fact that the construction of commissioned flats had started before the economic downturn.

*Commissioned living space in Moscow, thousand sq. m.*



*Number of commissioned flats in Moscow, units*

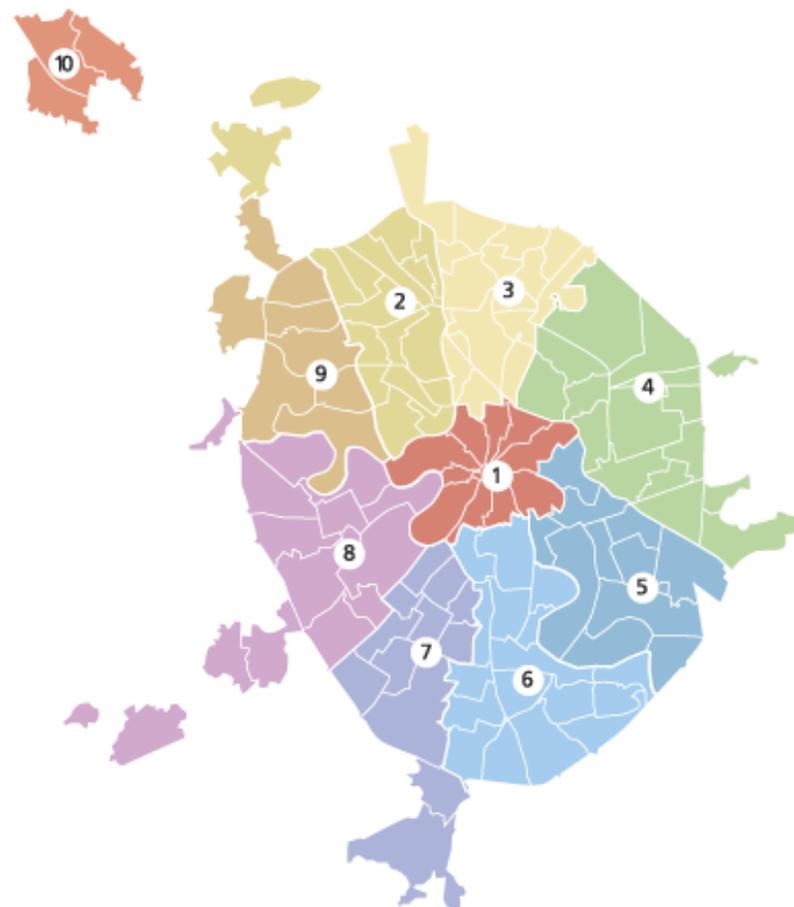


Source: Rosstat

## Residential Market: supply

The average price of new housing in 2015 in Moscow varied depending on the administrative district.

# District	Average price(RUB per sq. m.), as of Dec. 2015	Supply share, as of Dec. 2015
1 Central Administrative District	344,205	10.2%
2 Northern Administrative District	184,960	11.5%
3 Northeastern Administrative District	163,209	6.9%
4 Eastern Administrative District	179,173	5.7%
5 Southeastern Administrative District	142,549	11.8%
6 Southern Administrative District	165,238	13.9%
7 Southwestern Administrative District	191,240	11.3%
8 Western Administrative District	219,768	11.0%
9 Northwestern Administrative District	188,965	14.6%
10 Zelenograd Administrative District	81,518	3.1%

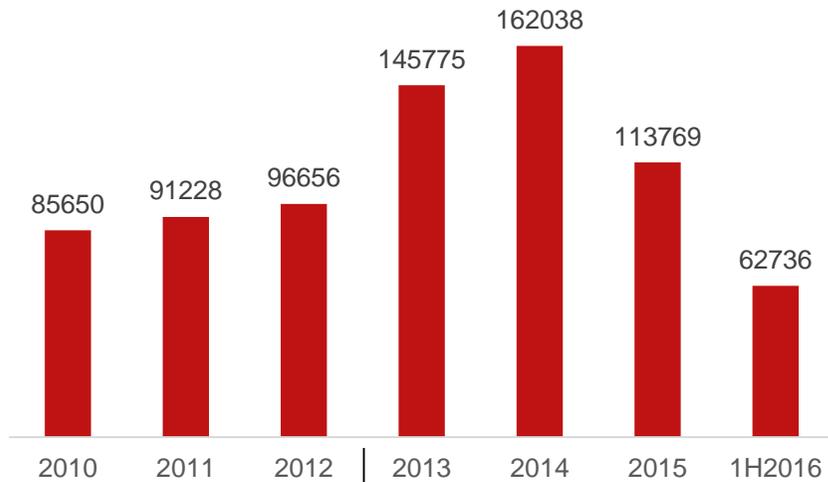


Source: Blackwood

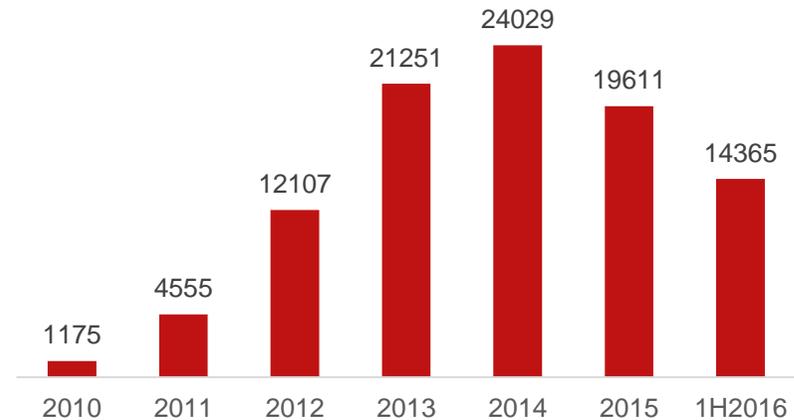
Residential demand in Moscow, which had been growing since 2010, declined in 2015 amid tough economic conditions.

- In 2015, the number of contracts in the primary and secondary housing market declined by 30% and 18% respectively as compared with 2014.
  - The decline in the primary housing market is not so dramatic as compared to the secondary housing market, largely due to lower prices and preferential loans.

Number of contracts in Moscow secondary housing market (~existing homes)



Number of contracts in Moscow primary housing market (~new homes)



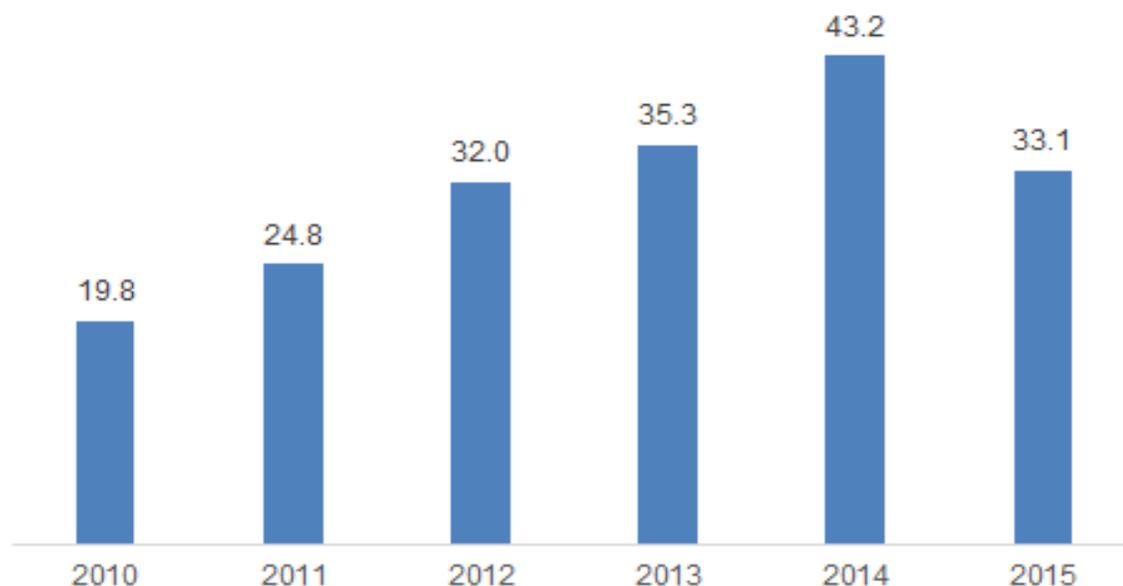
In 2013, statistical methodology changed: figures since 2013 along with sales include also barter of housing.

Source: Konti, Vedomosti

The number of mortgage-backed contracts in Moscow decreased by nearly 23.5% in 2015 as compared to 2014.

- In 2015, mortgage-backed contracts in Moscow amounted to 43.2 thousand, whereas in 2014 this figure accounted for 33.1 thousand.
- Mortgages in 2015 recorded the highest rate over the past 5 years: however, the Russian government launched a mortgage support program that allows individuals to buy new housing at a rate of no higher than 12% (these measures refer only to the primary housing market).

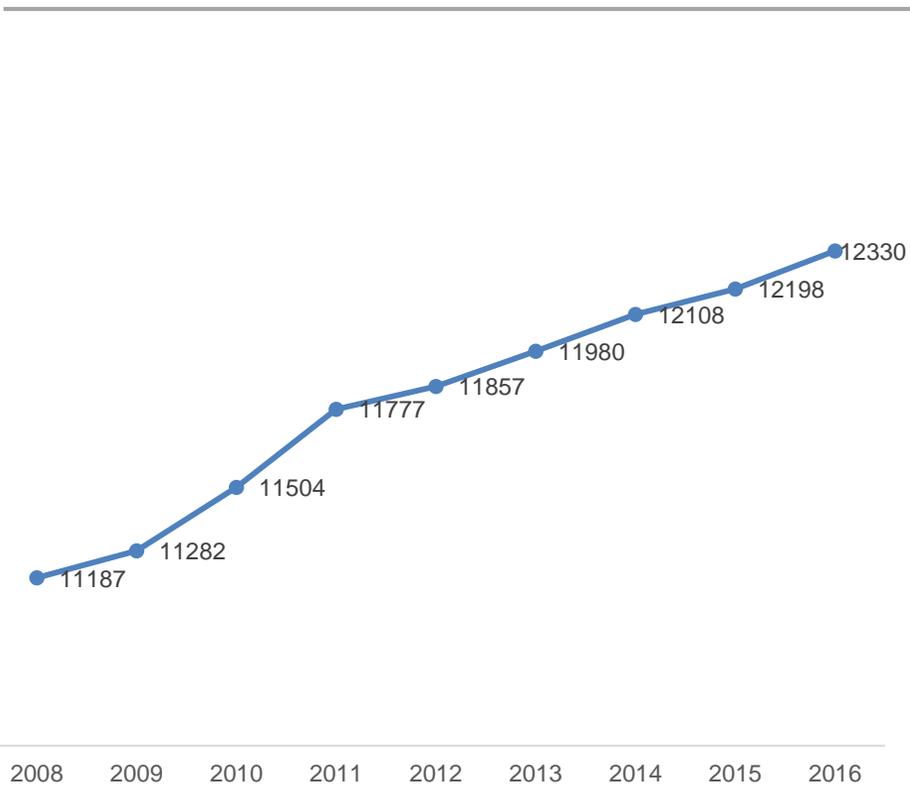
*Number of mortgage-backed contracts in Moscow, thousands*



Source: Rosreestr, open sources

## Reference: population of Moscow

*Population of Moscow, thousand people*



Source: Rosstat

*Population by district, as of 2016*

# District	District	Population, people
1	Central Administrative District	768,280
2	Northern Administrative District	1,158,528
3	Northeastern Administrative District	1,413,739
4	Eastern Administrative District	1,505,801
5	Southeastern Administrative District	1,380,668
6	Southern Administrative District	1,774,351
7	Southwestern Administrative District	1,426,227
8	Western Administrative District	1,362,701
9	Northwestern Administrative District	988,423
10	Zelenograd Administrative District	237,897

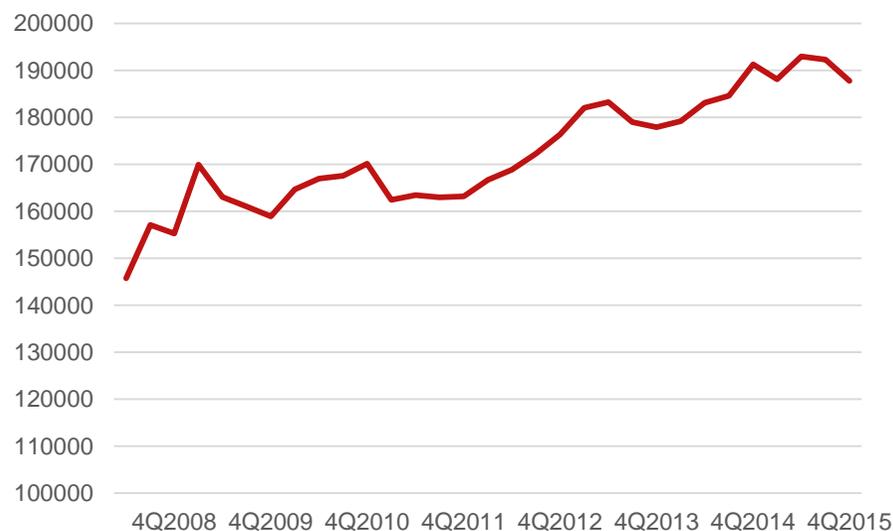
Source: City Population

## Residential Market: prices

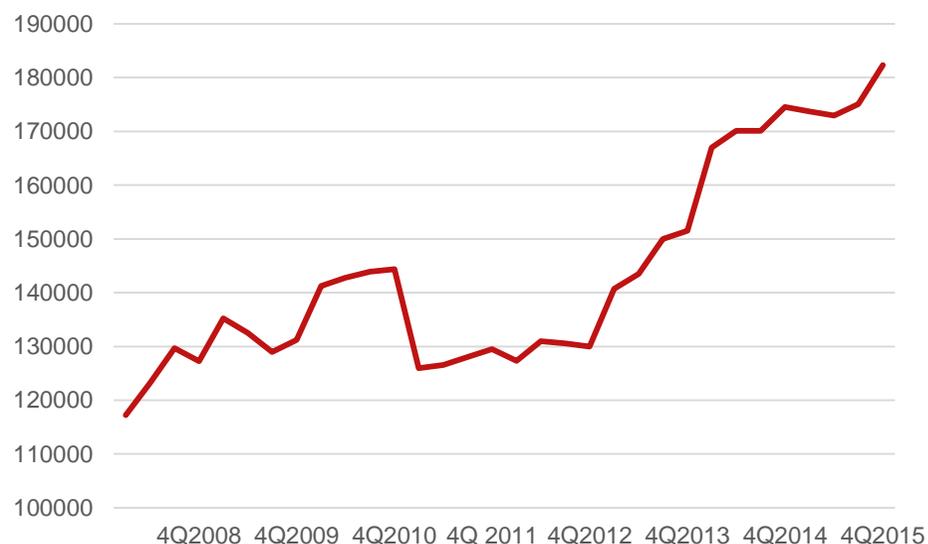
**The average price in Moscow grew steadily during 2015 in the primary housing market, while the average price in the secondary housing market showed negative growth.**

- According to the Federal State Statistics Service, the average price in the secondary housing market in 4Q 2015 declined by 2% (in comparison with the same period of the year earlier).
- The average price in the primary housing market grew by around 4%.

*Average price of secondary housing in Moscow  
(RUB per sq. m.).*



*Average price of primary housing in Moscow  
(RUB per sq. m.).*



Source: Rosstat

## Russia

Residential remains stable in spite of largely affected by devalued currency.

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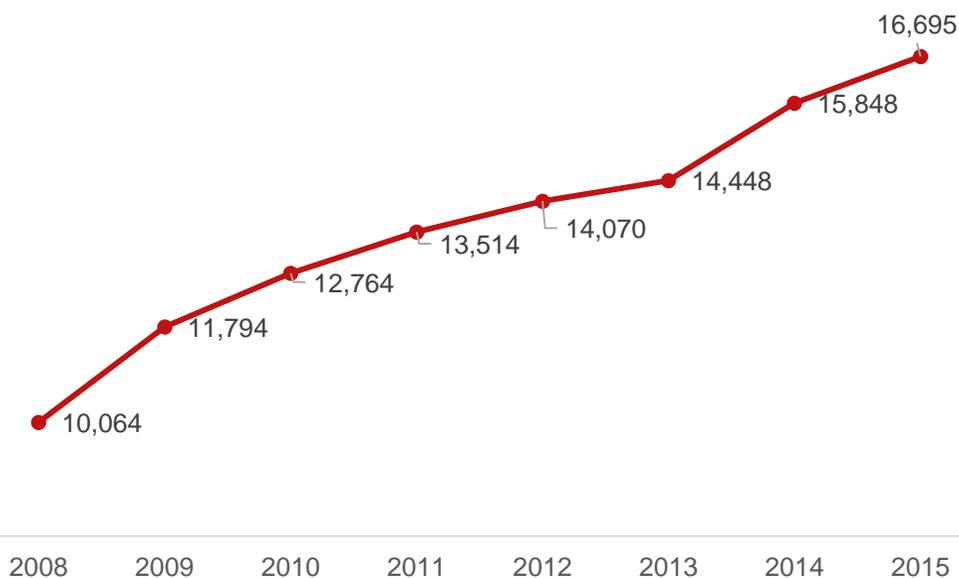
Retail Market

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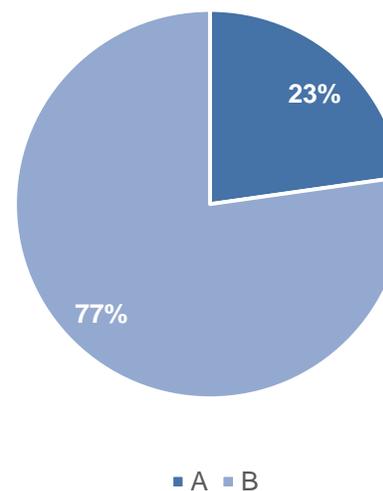
Hotel Market

The total stock of office space (class A and B) in Moscow is estimated at 16.7 million sq. m.

Office supply in Moscow, thousand sq. m.



Structure of offices by class in Moscow, %



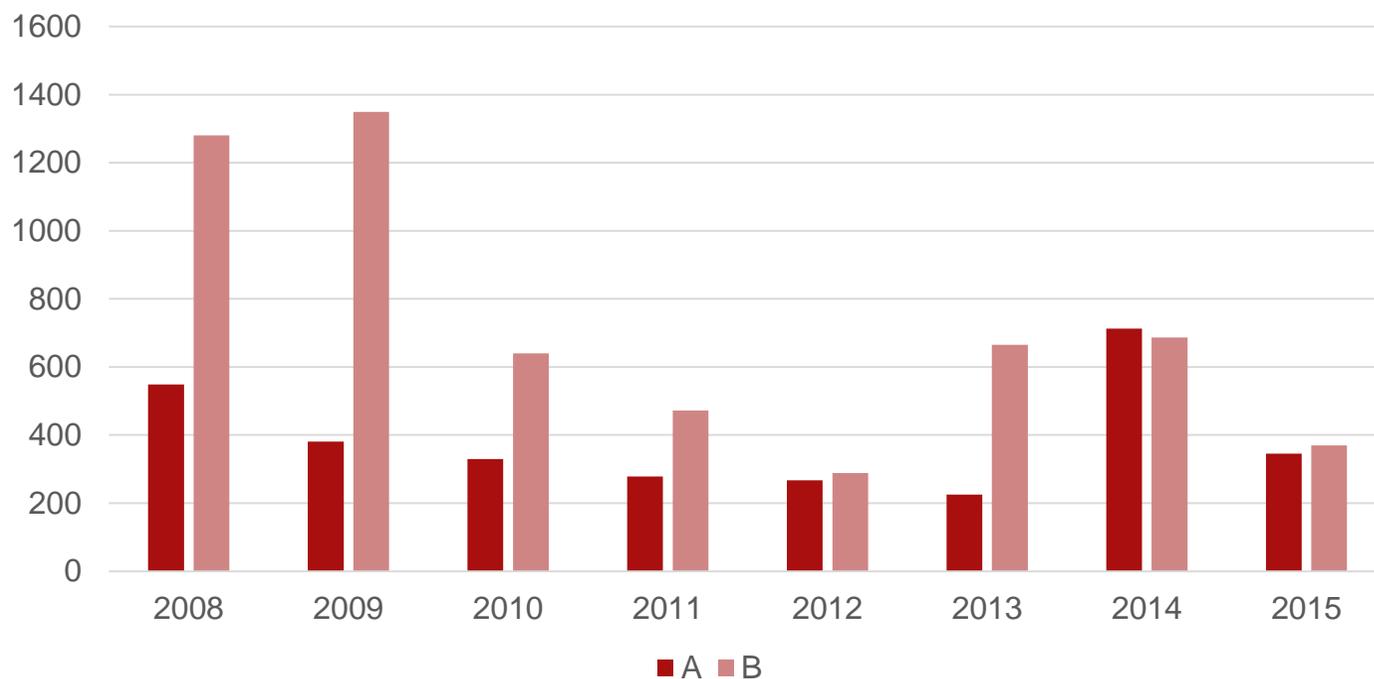
Source: Colliers

## Office Market

In 2015, the total area of office completions in Moscow declined by 50% in comparison to 2014.

- The total area of office completions in 2015 accounts for 715 thousand sq. m., while in 2014 this figure amounted to nearly 1.4 million sq. m.

*The number of office completions in Moscow, thousand sq. m.*

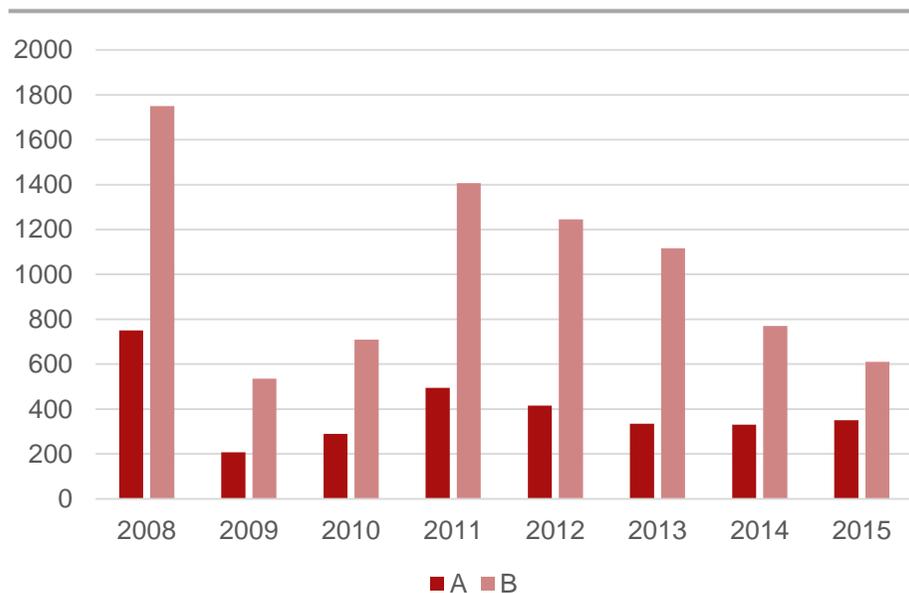


Source: Colliers

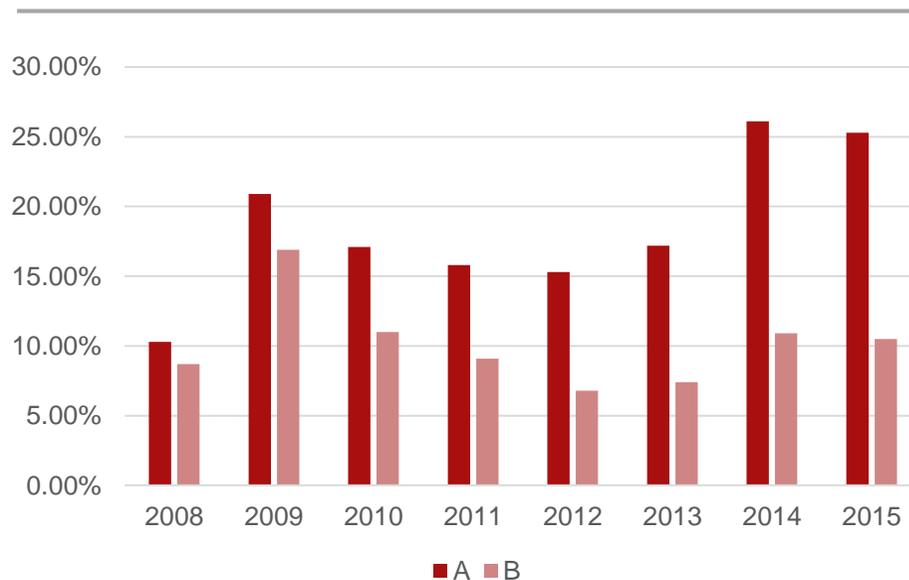
## Demand has recorded negative growth in the Moscow office market since 2011.

- The annual transaction volume in Moscow accounted for 960,000 sq. m. (12% decline compared to the previous year).
- The total amount of available supply is estimated at 2.4 million sq. m. (vacancy rate of 13.9%).

Transaction volume of offices in Moscow, thousand sq. m.



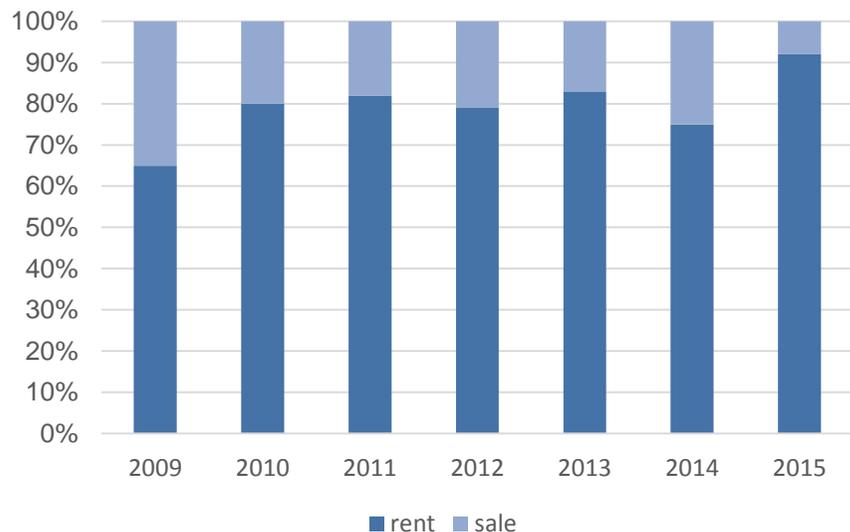
Vacancy rate of offices in Moscow, %



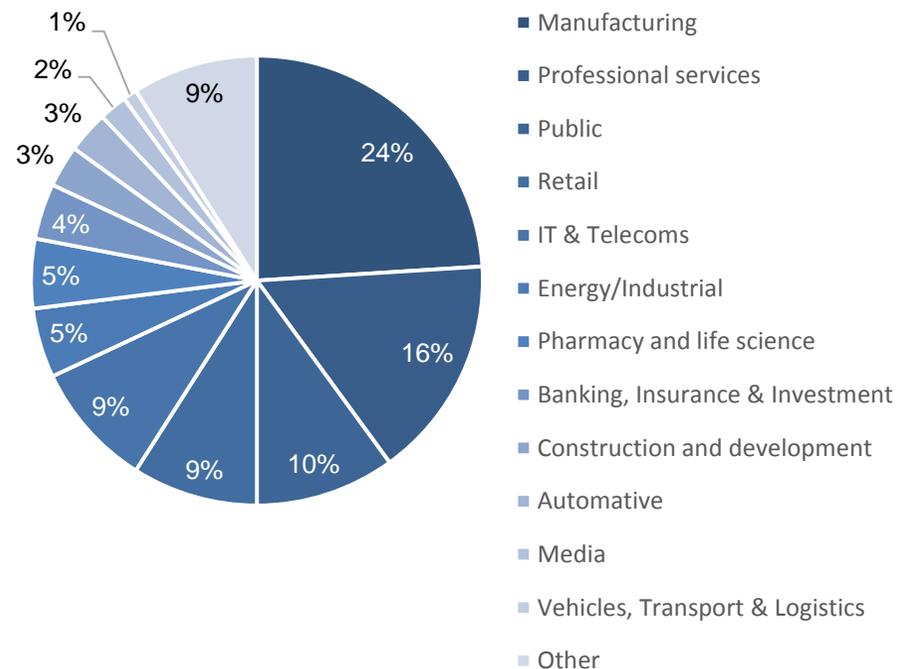
Source: Colliers

## Reference: take-up structure in Moscow

Take-up structure by type of deal



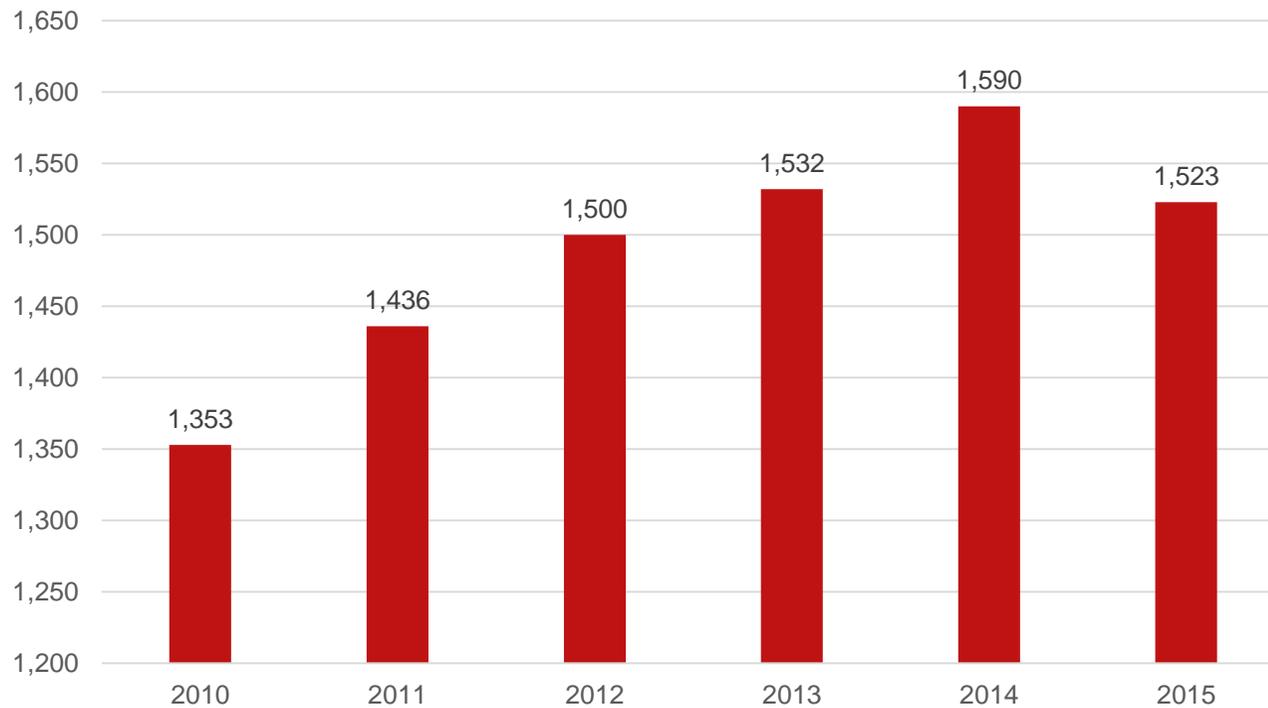
Take-up structure by sector in 2015



Source: Colliers

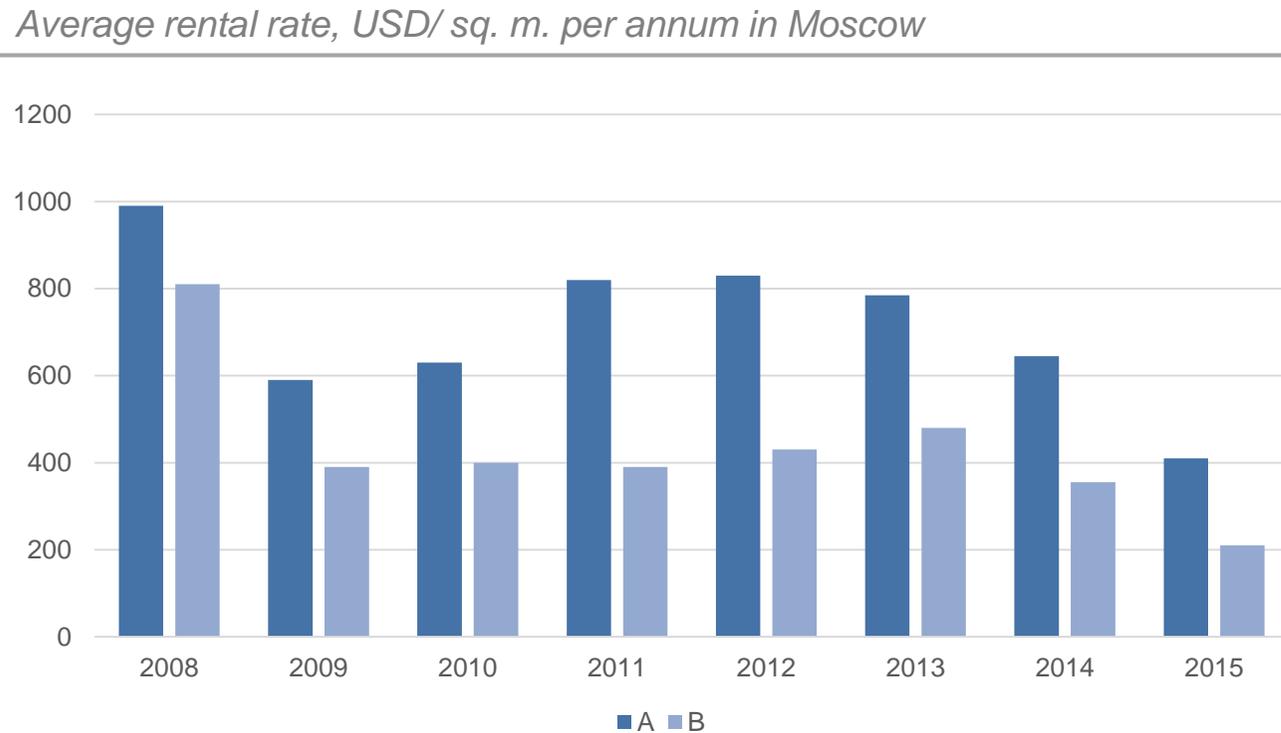
## Reference: number of office workers in Moscow

*Number of office workers in Moscow, thousand people*



Office Market: price

**Average rental rate in USD has significantly declined due to local currency devaluation.**



Source: Colliers

## Russia

Residential remains stable in spite of largely affected by devalued currency.

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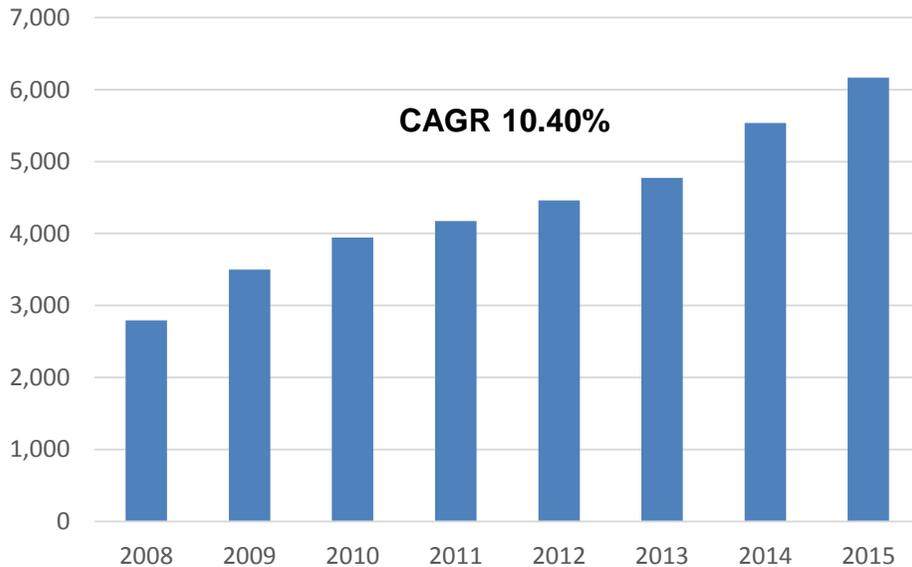
4 Retail Market

5 Hotel Market

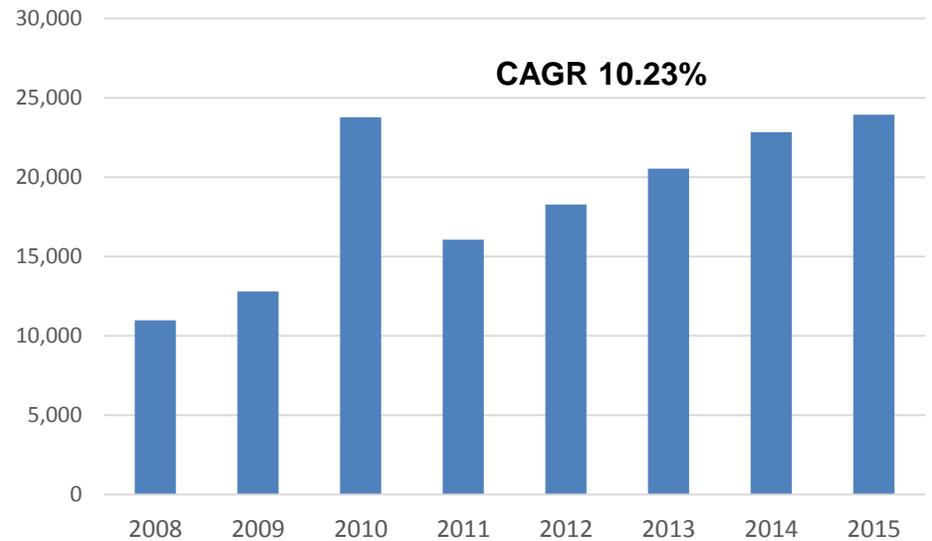
## Retail Market: supply

The total stock of shopping centers space has been growing at a CAGR of nearly 10% since 2008.

*Total supply of shopping centers in Moscow, thousand sq. m.*



*Total supply of shopping centers in Russia, thousand sq. m.*

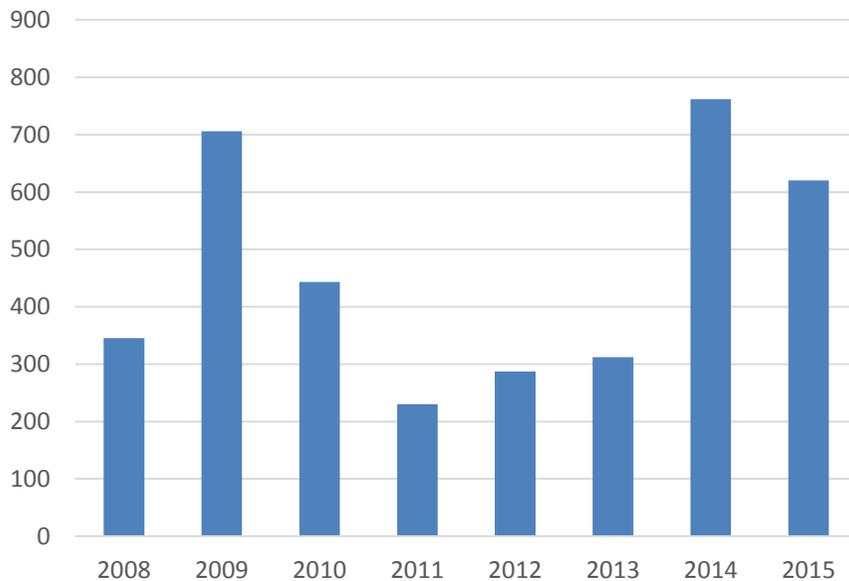


Source: Colliers

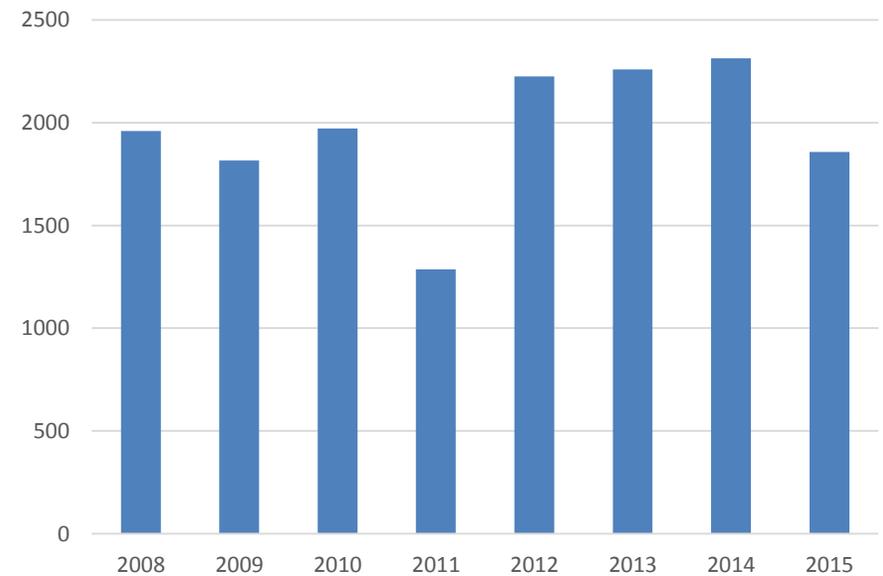
## Retail market: supply

**The total area of completed shopping centers in 2015 had a nearly 20% decline for both Moscow and the whole Russian retail market.**

*The number of completed shopping centers (GLA) in Moscow*



*The number of completed shopping centers (GLA) in Russia*

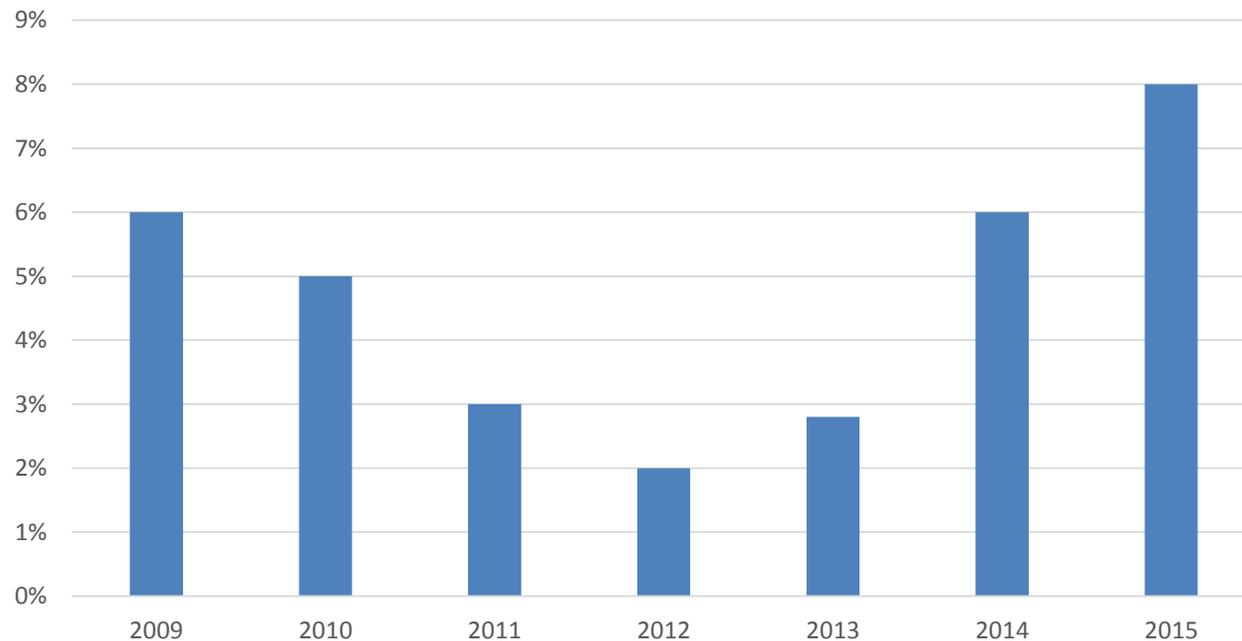


Source: Colliers

## The vacancy rate has been growing since 2012 and reached 8% in 2015.

- A significant increase in supply (after the completion of several large-scale projects) and, on the other hand, reduction of most retailers' development plans have resulted in vacancy rate growth.

*Vacancy rate in Moscow retail market, %*



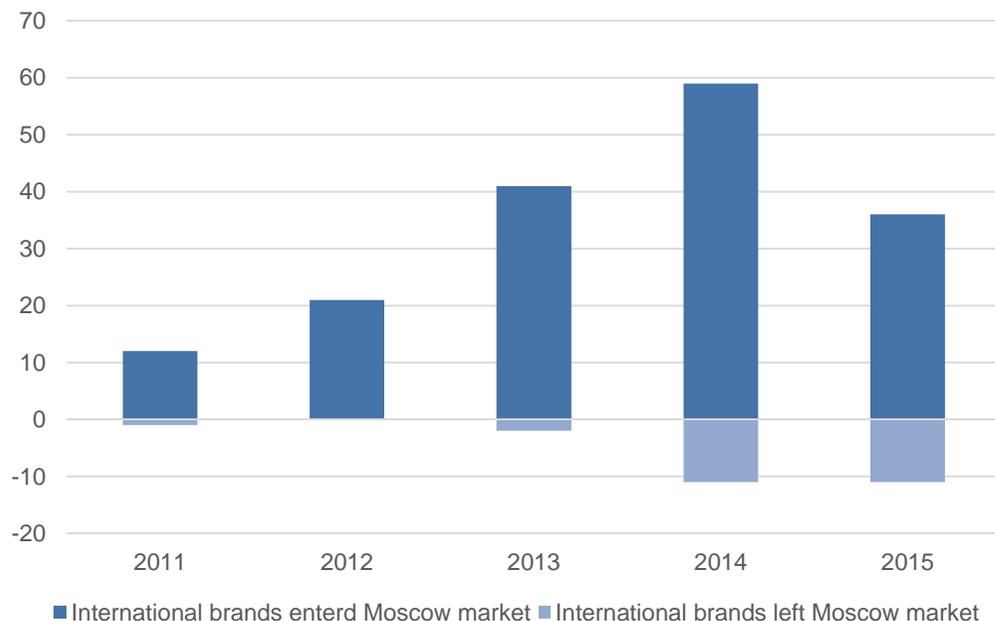
Source: Colliers

## Moscow retail market: demand

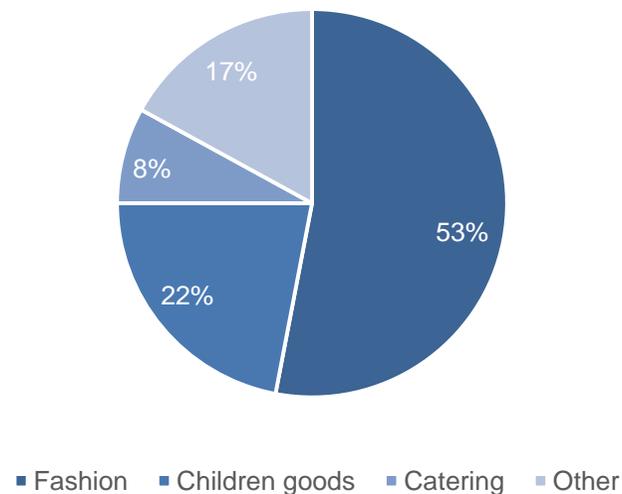
**Despite current economic condition the number of brands entered the Moscow market still far outweighs the number of brands that have left.**

■ In 2015, 36 new international brands entered the Moscow market, while 11 announced to leave.

*Number of international brands entered in Moscow market*



*Structure of brands entering Moscow in 2015, %*



Source: Colliers

## Russia

Residential remains stable in spite of largely affected by devalued currency.

1 Macro Fundamentals

2 Office Market

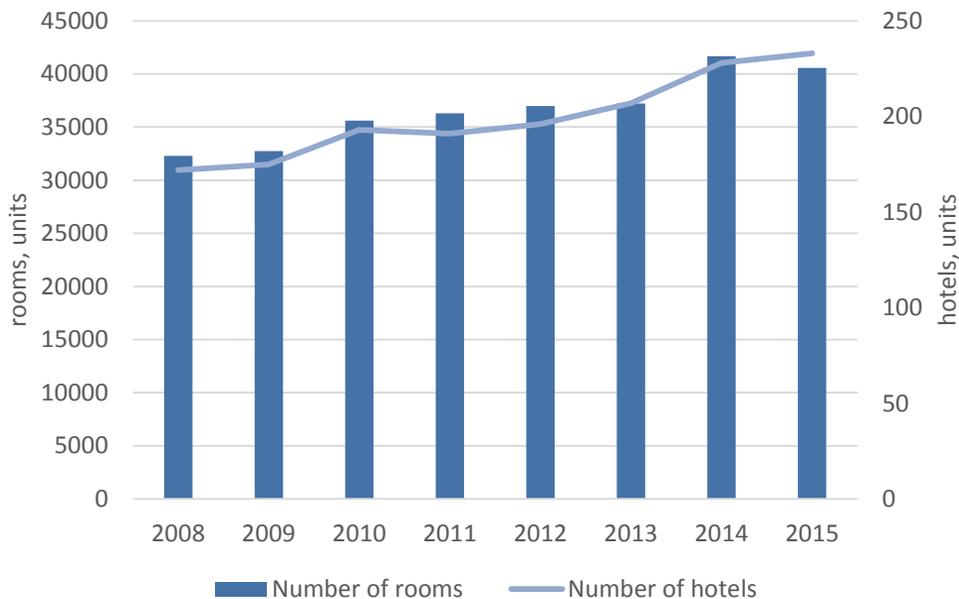
3 Residential Market

4 Retail Market

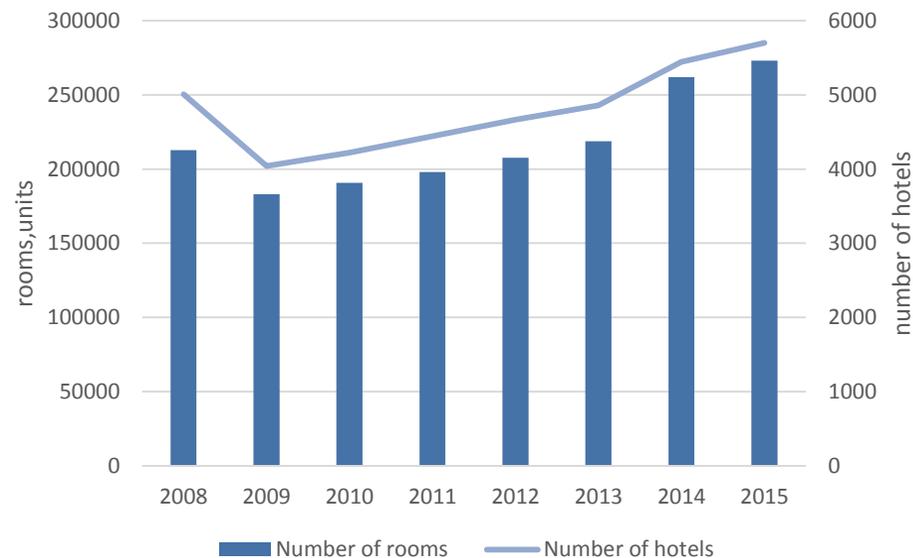
5 Hotel Market

## Hotel supply has been staying at nearly the same level since 2014.

### Total supply of hotels in Moscow



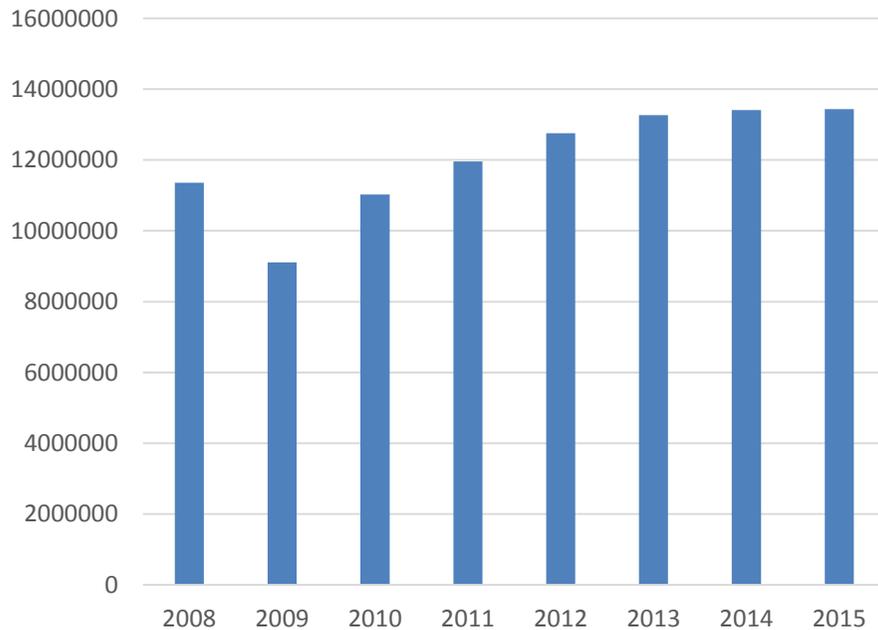
### Total supply of hotels in Russia



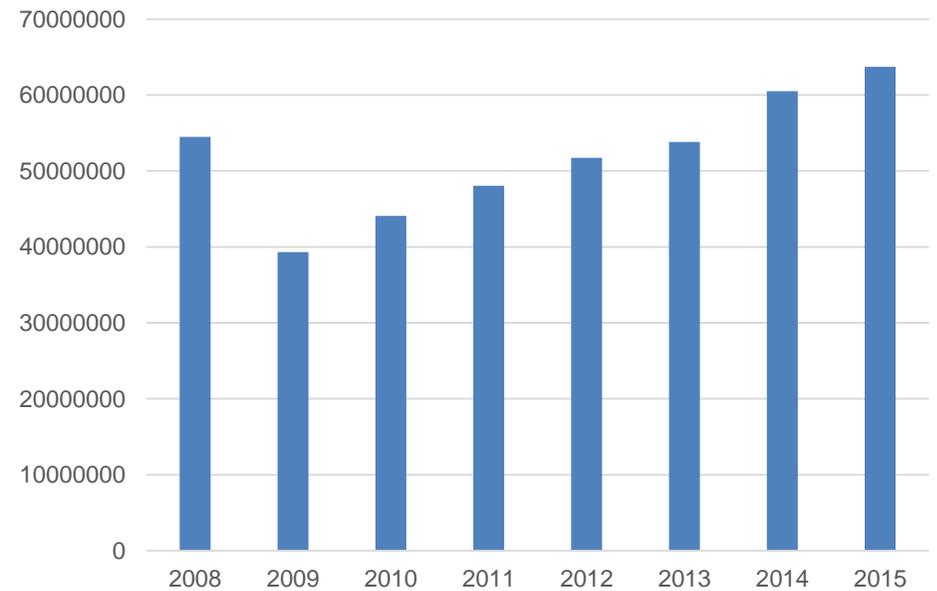
Source: Rosstat

The number of overnight stays in hotels has also not faced significant changes.

*Number of stays in hotels, Moscow*



*Number of stays in hotels, Russia*



Source: Rosstat

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