

# **The Chinese Property Market:**

**The Latest Developments and Outlook**

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BBVA

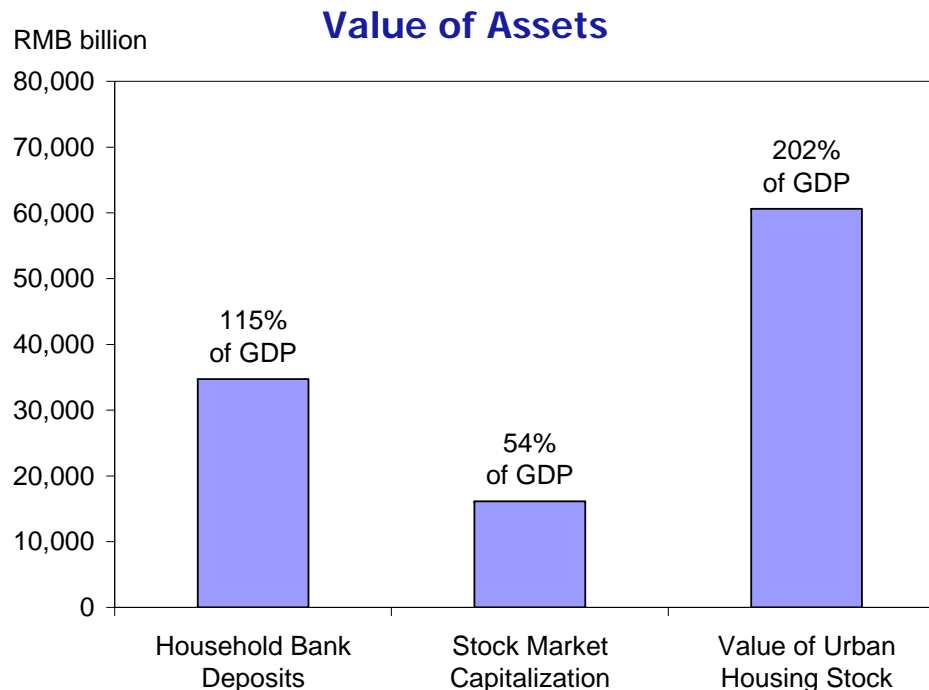
7 May 2009 at HKGCC

## Major Findings

- **China's residential property market has a bright long-term investment potential, supported by fast income growth, rapid urbanization and a high depreciation of the housing stocks.**
- **However, near-term adjustments are unavoidable given the sharp economic downturn and the current oversupply in the high-end residential housing. Downward adjustments in prices of up to 20% in some first tier cities are possible in the near term.**
- **However, we view the probability that China's property market will experience a hard landing as very low. This is because China's urban demand for housing remains resilient given its high savings ratio, good growth prospects, and proactive government policies.**
- **We believe it would be important to consider additional policy measures to support the market.**

# **Part 1: Latest Developments and Some Characteristics**

## Housing stock in households' portfolio

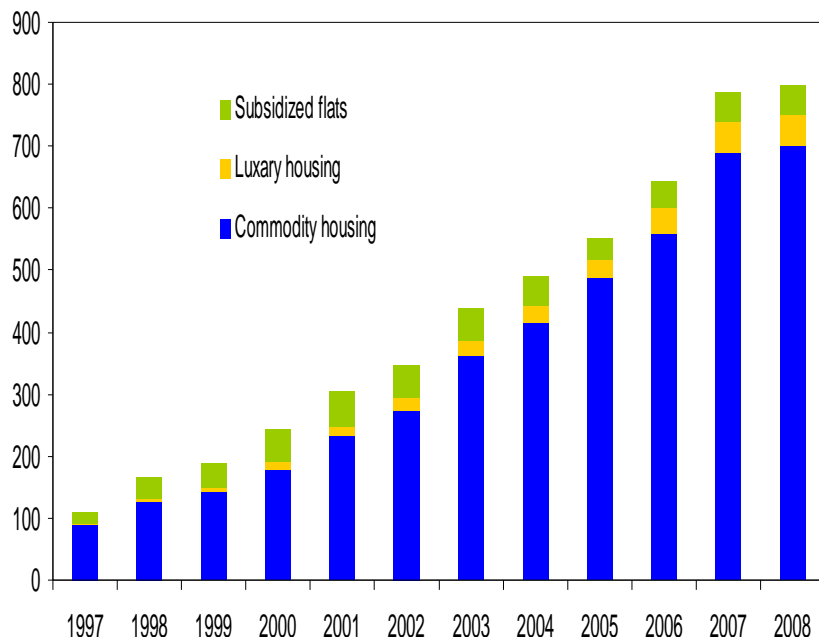


Sources: CEIC and BBVA estimates.

**Real estate asset has become an important asset class for portfolio allocation of Chinese residents. We estimate that the nationwide urban real estate assets are at around RMB 60 trillion, already exceeding either the size of China's household banking deposits or the stock markets. Therefore, the health of the housing sector has an important impact on the real economic activity.**

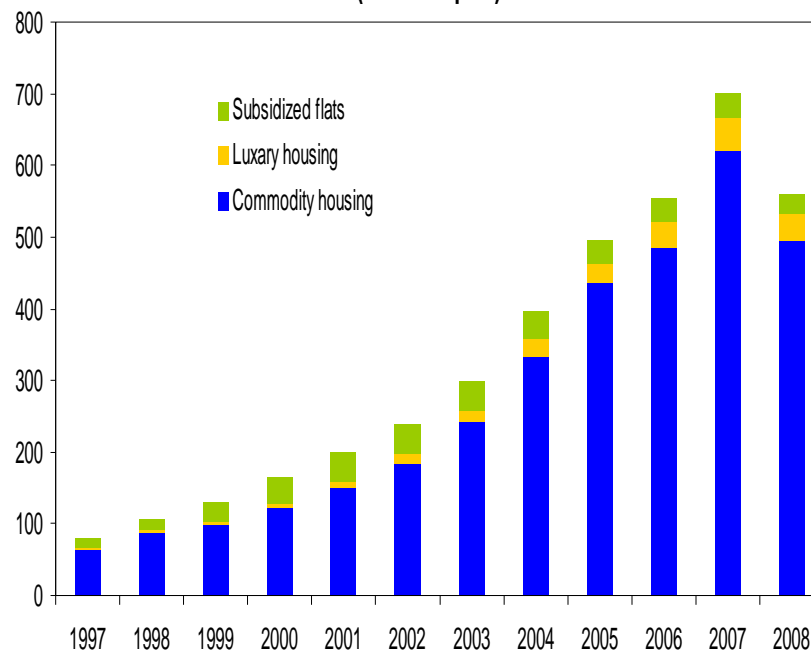
# Housing area completed and sold

Housing areas completed  
(million sq. m.)



Sources: CEIC and BBVA estimates.

Transaction volumes  
(million sq. m.)

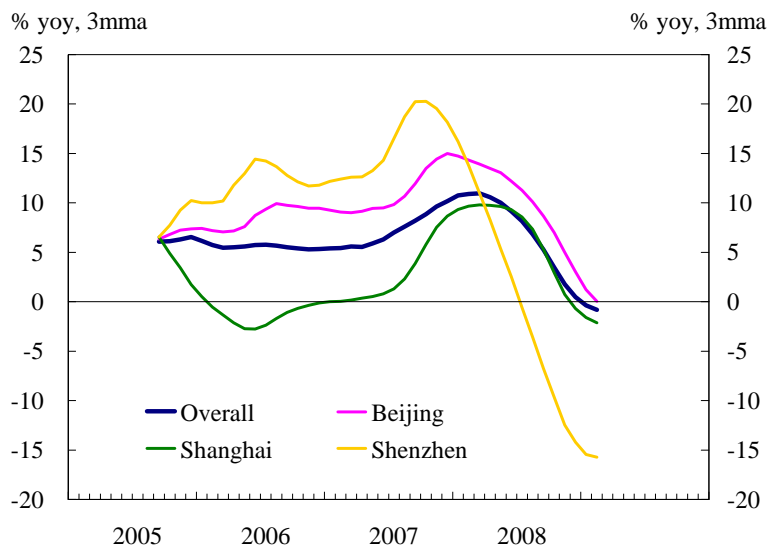


Sources: CEIC and BBVA estimates.

**Supply and demand are roughly met until 2007. However, the transaction volumes fell sharply in 2008, leading to large unsold housing units, especially in the segment of commodity housing amounting to 206 million sq m.**

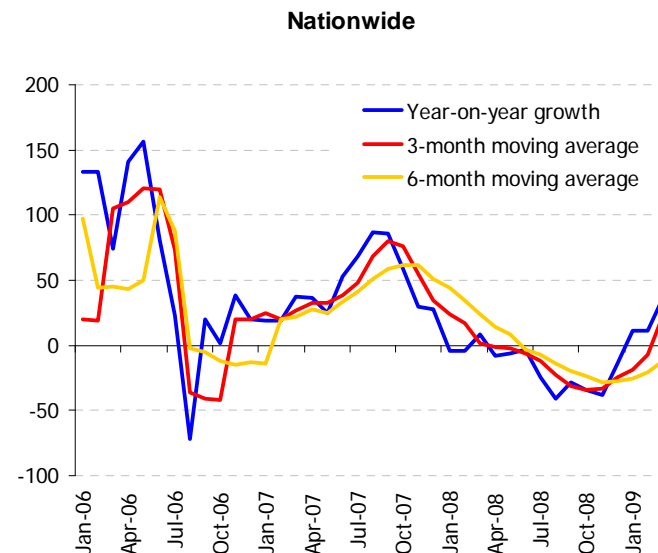
# Property prices fell, while transaction volumes rebounded

## Property prices



Sources: CEIC and BBVA estimates.

## Property transactions

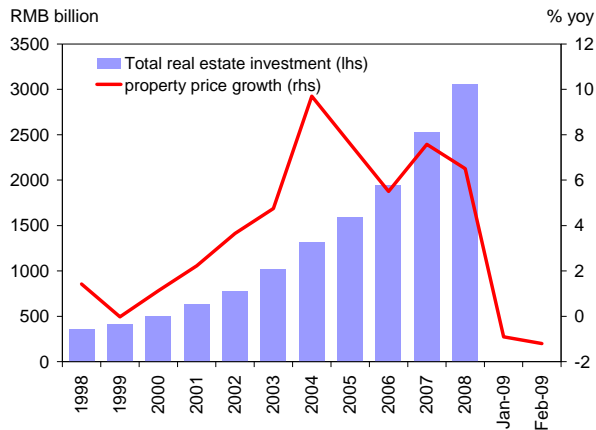


Sources: CEIC and BBVA estimates.

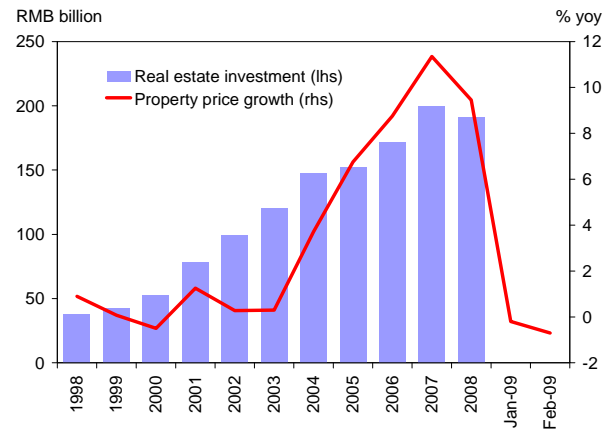
**China's real estate market started to cool in the middle of 2008. From December 2008 onwards, the nationwide housing prices have started to fall for the first time in a decade. Shenzhen has seen its monthly housing prices drop by over 15% in recent months. As long as housing prices are flexible enough, demand is likely to adjust accordingly.**

# Property prices nationwide vs. Beijing and Shanghai

### Nationwide



### Beijing



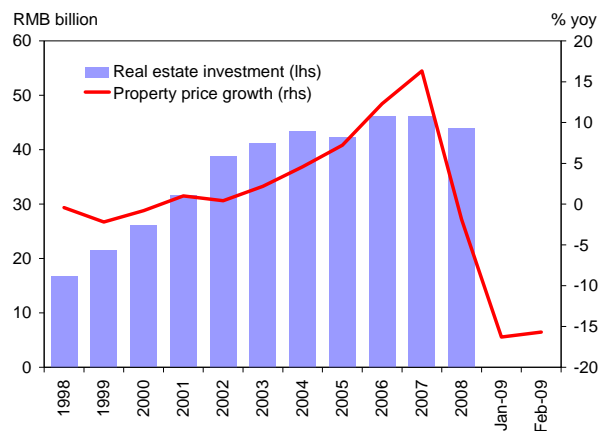
### Shanghai



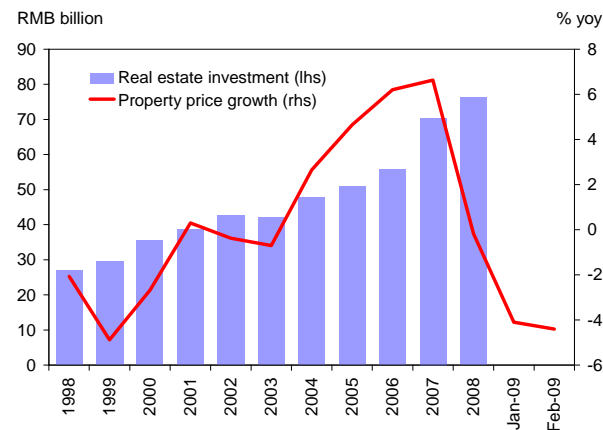
- **Growth in national property prices peaked in 2004 and has since moderated.**
- **Growth in Beijing's property prices peaked in 2007 while that in Shanghai's peaked in 2003.**

# Property prices in other cities

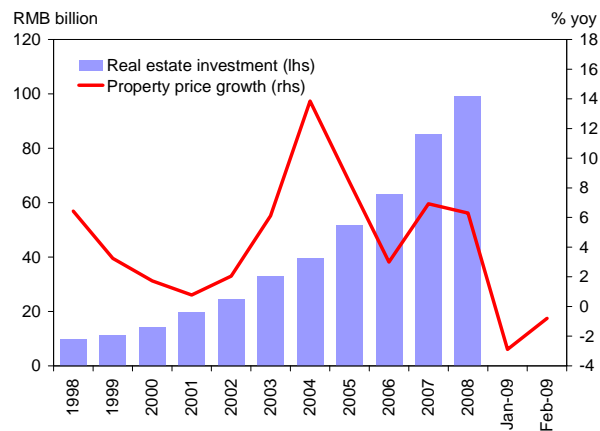
## Shenzhen



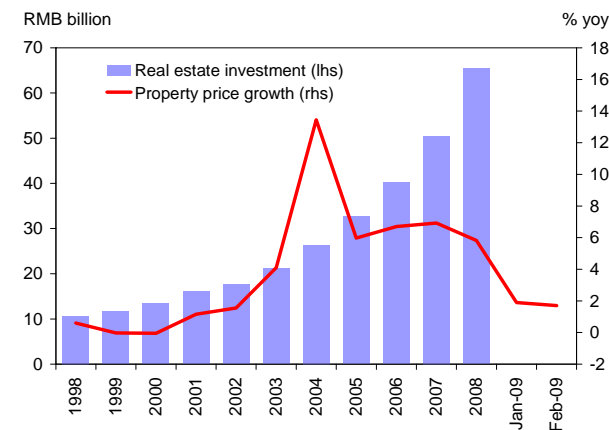
## Guangzhou



## Chongqing



## Tianjin





## Affordability: Some comparison within China

- In recent five years, China's growth in GDP per capita is twice as fast as that in property growth.
- Affordability is not a problem measured by the price to disposable income ratio, even by international standards.
- However, in certain cities, this ratio has much exceeded some international recognized threshold, particularly in Beijing, Shanghai, Guangzhou, and Shenzhen.

|                    | GDP per capita<br>(% yoy)<br>(2002-2007) | Property Price<br>(% yoy)<br>(2002-2007) | Property price to per<br>capita income (%) <sup>1/</sup><br>(2007) |
|--------------------|--|--|--|
| <b>Nation-wide</b> | <b>14.0</b>                              | <b>6.5</b>                               | <b>7.6</b>   |
| Beijing*           | 12.9                                     | 5.8                                      | 14.2   |
| Shanghai           | 12.8                                     | 9.1                                      | 9.6  |
| Chongqing          | 15.4                                     | 6.7                                      | 5.8  |
| Chengdu            | 12.7                                     | 5.4                                      | 7.8  |
| Tianjin            | 15.8                                     | 6.4                                      | 4.0  |
| Wuhan              | 13.5                                     | 4.9                                      | 8.8  |
| Qingdao            | 18.0                                     | 9.6                                      | 7.9  |
| Guangzhou          | 8.3                                      | 2.7                                      | 10.4   |
| Shenzhen           | 15.2                                     | 5.9                                      | 11.3   |
| Nanning            | 7.9                                      | 5.0                                      | 7.1  |

Sources: CEIC, Wind and BBVA estimates.

Notes: \* GDP per capita growth for Beijing is simple average of 2002-2008.

<sup>1/</sup> Floor space per capita is roughly 27 squared meters.

## Rental returns in some key cities

|                               |                   | <u>Price (USD)</u> |                     | <u>Yield (% p.a.)</u> | <u>Price per square meter (USD)</u> |                     |
|-------------------------------|-------------------|--------------------|---------------------|-----------------------|-------------------------------------|---------------------|
|                               |                   | <u>Total value</u> | <u>Monthly Rent</u> |                       | <u>Value</u>                        | <u>Monthly Rent</u> |
| <b>Beijing</b> <sup>1</sup>   | <i>Apartments</i> |                    |                     |                       |                                     |                     |
|                               | 60 sq.m           | 114,180            | 539                 | 5.67                  | 1,903                               | 8.98                |
|                               | 120 sq.m          | 261,960            | 1,122               | 5.14                  | 2,183                               | 9.35                |
|                               | 200 sq.m          | 465,800            | 2,206               | 5.68                  | 2,329                               | 11.03               |
| <b>Shanghai</b> <sup>2</sup>  | <i>Apartments</i> |                    |                     |                       |                                     |                     |
|                               | 60 sq.m           | 116,040            | 533                 | 5.51                  | 1,934                               | 8.88                |
|                               | 120 sq.m          | 323,640            | 1,176               | 4.36                  | 2,697                               | 9.80                |
|                               | 200 sq.m          | 600,200            | 2,468               | 4.93                  | 3,001                               | 12.34               |
| <b>Guangzhou</b> <sup>3</sup> | <i>Apartments</i> |                    |                     |                       |                                     |                     |
|                               | 60 sq.m           | 67,440             | 305                 | 5.43                  | 1,124                               | 5.08                |
|                               | 120 sq.m          | 169,200            | 734                 | 5.21                  | 1,410                               | 6.12                |
|                               | 180 sq.m          | 345,960            | 1,298               | 4.50                  | 1,922                               | 7.21                |
| <b>Shenzhen</b> <sup>4</sup>  | <i>Apartments</i> |                    |                     |                       |                                     |                     |
|                               | 45 sq.m           | 66,150             | 314                 | 5.70                  | 1,470                               | 6.98                |
|                               | 75 sq.m           | 106,500            | 406                 | 4.57                  | 1,420                               | 5.41                |
|                               | 105 sq.m          | 123,165            | 457                 | 4.45                  | 1,173                               | 4.35                |
|                               | <i>Villas</i>     |                    |                     |                       |                                     |                     |
|                               | 120 sq.m          | 244,920            | 992                 | 4.86                  | 2,041                               | 8.27                |
|                               | 185 sq.m          | 573,315            | 1,650               | 3.45                  | 3,099                               | 8.92                |
|                               | 255 sq.m          | 1,367,310          | 2,978               | 2.61                  | 5,362                               | 11.68               |
|                               | 325 sq.m          | 2,017,925          | 3,926               | 2.33                  | 6,209                               | 12.08               |
|                               | 450 sq.m          | 3,460,500          | 6,336               | 2.20                  | 7,690                               | 14.08               |
| <b>Chengdu</b> <sup>5</sup>   | <i>Apartments</i> |                    |                     |                       |                                     |                     |
|                               | 60 sq.m           | 57,000             | 203                 | 4.28                  | 950                                 | 3.38                |
|                               | 120 sq.m          | 110,760            | 395                 | 4.28                  | 923                                 | 3.29                |
|                               | 180 sq.m          | 173,160            | 682                 | 4.73                  | 962                                 | 3.79                |

Source: Global Property Guide

Notes: 1. Districts included: Chaoyang; Dongcheng; CBD area

2. Districts included: Jingan; Xuhui; Changning; Pudong

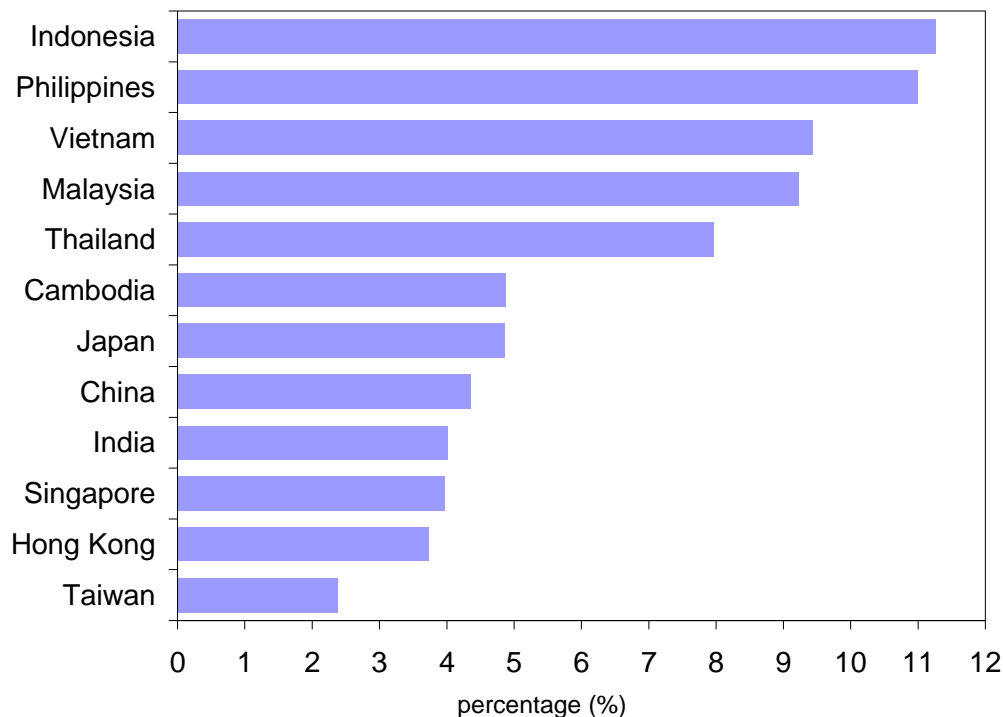
3. Districts included: Haizhu; Huangpu; Tianhe; Zengcheng

4. Districts included: Nanshan; Futian

5. Districts included: Wuhou; Jinjiang; Jinniu; Qingyang

Data as of 19 Feb, 2009.

## Gross rental yields: International comparison

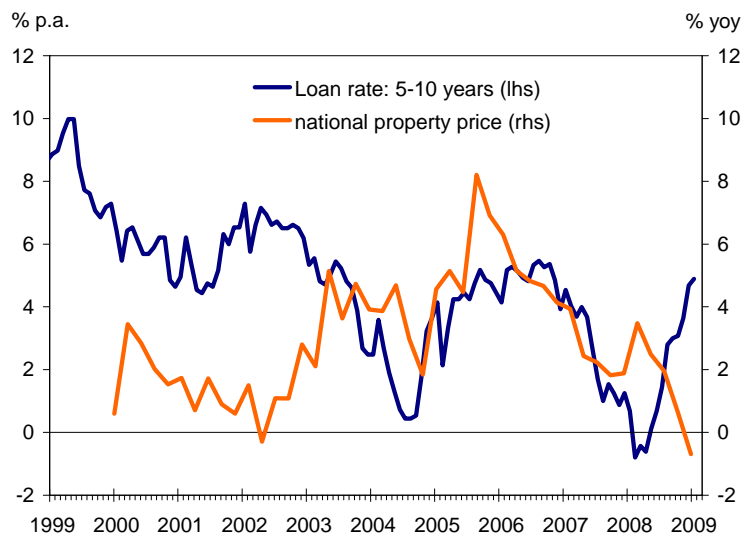


*Source: Global Property Guide.*

**Comparing rental returns internationally, China's gross rental returns are higher than Hong Kong, Singapore and Taiwan but much lower than some developing ASEAN economies.**

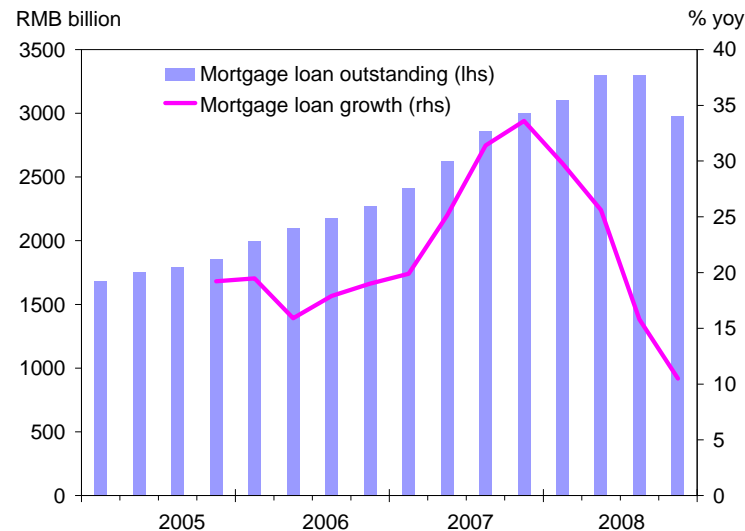
# Real mortgage rates and mortgage loans

## Real Interest Rates and Property Prices



Sources: CEIC and BBVA estimates.

## Mortgage Loan Outstanding



Source: Wind.

**Interest rate and property prices have a negative, though lagging relationship. China's mortgage outstanding, though growing fast, remains small as a share of total bank loans. It is at around 10% at the end of 2008.**

## Another form of housing finance is housing provident fund

### National HPF Accumulation and Usage

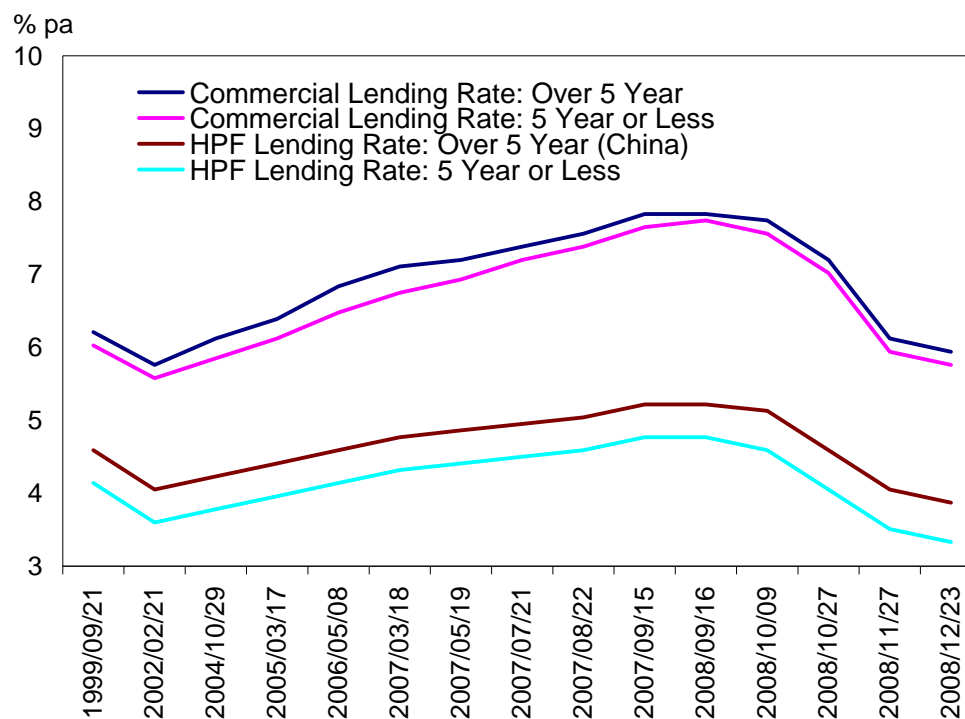
|             | Accumulated funds,<br>bn | Fund balance,<br>bn | Participants, mn | Total Households<br>obtaining loans, mn | Amount of Total<br>Loans, bn | Current Year Data   |                   |                     |
|-------------|--------------------------|---------------------|------------------|---|------------------------------|---------------------|-------------------|---------------------|
|             |                          |                     |                  |   |                              | Contribution,<br>bn | Fund Drawn,<br>bn | Loans Issued,<br>bn |
| <b>2004</b> | 750.7                    | 489.4               | 48.9             |   | 340.7                        | 183.7               | 73.1              | 106.1               |
| <b>2005</b> | 976.0                    | 626.0               | 62.6             | 5.2                                     | 459.9                        | 235.9               | 99.3              | 119.5               |
| <b>2006</b> | 1268.4                   | 787.1               | 69.2             | 7.0                                     | 636.4                        | 292.8               | 131.6             | 176.5               |
| <b>2007</b> | 1623.0                   | 960.5               | 71.9             | 8.3                                     | 856.6                        | 354.3               | 180.9             | 220.2               |

*Source: Ministry of Housing and Urban-Rural Development*

**Housing provident fund is a unique form of housing finance institution in China: It is a fund contributed by both employees and employers. Employees contributes 5% to 20% of their salary to the fund with equal amount of contribution from their employers. The benefits are low interest rate and accumulated large down payment for housing.**

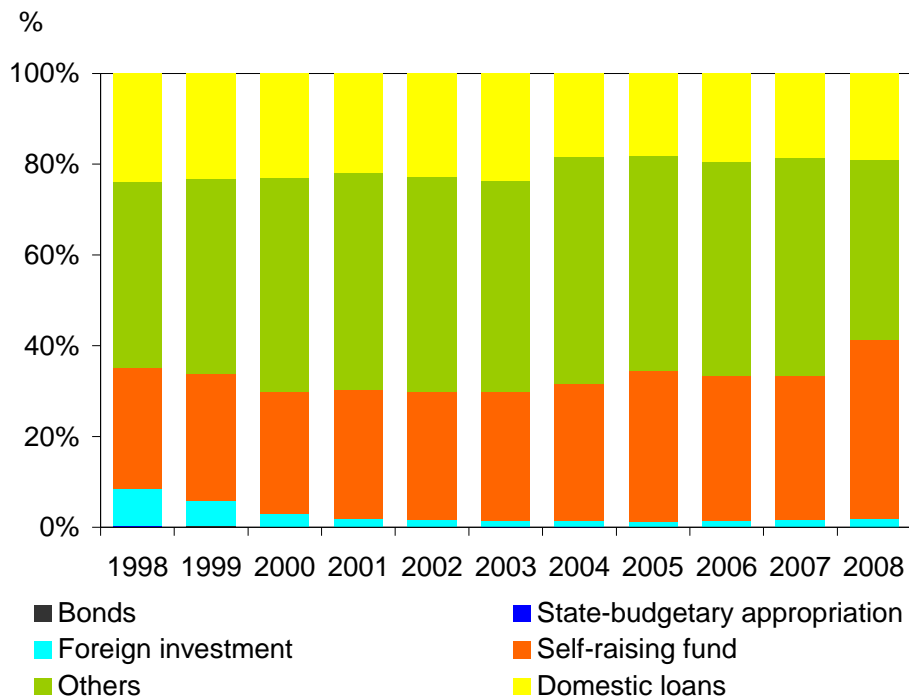
# HPF enjoys relatively low interest rates

## Interest Rate Comparison between Commercial Loan and HPF loan



Source: Wind Economic Data.

## Real estate funding sources



*Sources: Wind and BBVA estimates.*

**Foreign participation in China's real estate development remains limited.**

## Government revenues from the real estate sector

|   |        | 2002 | 2003 | 2004  | 2005  | 2006  | 2007  | 2008  |
|---|--------|------|------|-------|-------|-------|-------|-------|
| Total value of land purchased           | RMB bn | 146  | 205  | 257   | 290   | 378   | 487   | 579   |
| Local government revenue                | RMB bn | 852  | 985  | 1,189 | 1,510 | 1,830 | 2,357 | 2,864 |
| <i>(% share to local gov't revenue)</i> | %      | 17.1 | 20.8 | 21.6  | 19.2  | 20.7  | 20.6  | 20.2  |

*Source: Wind.*

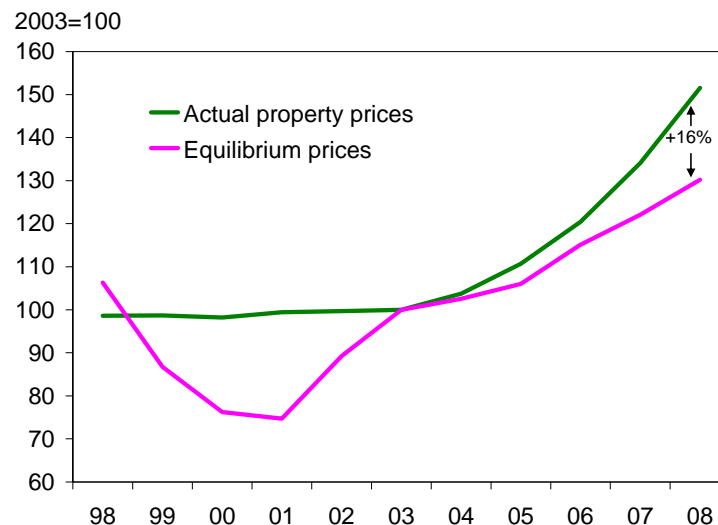
**Real estate related activities have become an important source of revenue for local governments. In certain locales, the dependence for land sales and other real estate activities could be much higher than the average numbers presented here.**



## **Part 2: Valuation Issues and Outlook**

## How much overvaluation? Beijing

|  | Beijing  |
|--|--|
| <b>Population size ('000)</b>              | 12,133   |
| <b>Per capita income (RMB, 2007)</b>       | 58,204   |
| <b>Average growth from 1998-2008</b>       | 11.6   |
| <b>Average temperature year round (°C)</b> | 11.8   |
| <b>Number of universities</b>              | 84   |
| <b>Service industry ratio</b>              | 73.2   |
| <b>Key manufacturing industries</b>        | IT, Auto,<br>Petrochemical,<br>Pharmaceutical,<br>etc. |



Source: BBVA estimates.

**Our model estimates suggest there are at least 16% of overvaluation in Beijing's housing prices on average.**

## How much overvaluation? Shanghai

|                                     | Shanghai                     |
|-------------------------------------|------------------------------|
| Population size ('000)              | 13,789                       |
| Per capita income (RMB, 2007)       | 66,367                       |
| Average growth from 1998-2008       | 11.6                         |
| Average temperature year round (°C) | 17.8                         |
| Number of universities              | 61                           |
| Service industry ratio              | 37.9                         |
| Key manufacturing industries        | Auto, IT,<br>Equipment, etc. |



Source: BBVA estimates.

**Shanghai's overvaluation is at least 18% on average.**

## How much overvaluation? Shenzhen

|  | <b>Shenzhen</b>                            |
|--|--|
| <b>Population size ('000)</b>              | 2,124                                      |
| <b>Per capita income (RMB, 2007)</b>       | 79,645                                     |
| <b>Average growth from 1998-2008</b>       | 15.2                                       |
| <b>Average temperature year round (°C)</b> | 22.3                                       |
| <b>Number of universities</b>              | 10   |
| <b>Service industry ratio</b>              | 53.7                                       |
| <b>Key manufacturing industries</b>        | Electronic, IT,<br>Communications,<br>etc. |



Source: BBVA estimates.

**Shenzhen's overvaluation is at least 20% on average.**

## How much overvaluation? Guangzhou

|  | <b>Guangzhou</b>                            |
|--|---|
| <b>Population size ('000)</b>              | 7,735                                       |
| <b>Per capita income (RMB, 2007)</b>       | 71,808                                      |
| <b>Average growth from 1998-2008</b>       | 13.7  |
| <b>Average temperature year round (°C)</b> | 21.8  |
| <b>Number of universities</b>              | 29  |
| <b>Service industry ratio</b>              | 41.0  |
| <b>Key manufacturing industries</b>        | Eletronic, Auto,<br>Pharmaceutical,<br>etc. |

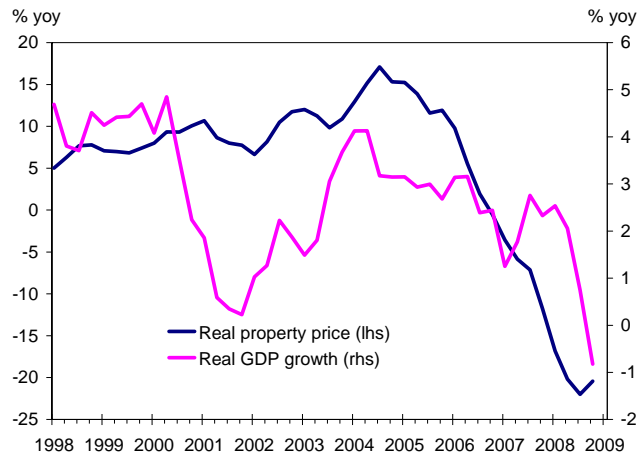


Source: BBVA estimates.

**There is little overvaluation in Guangzhou.**

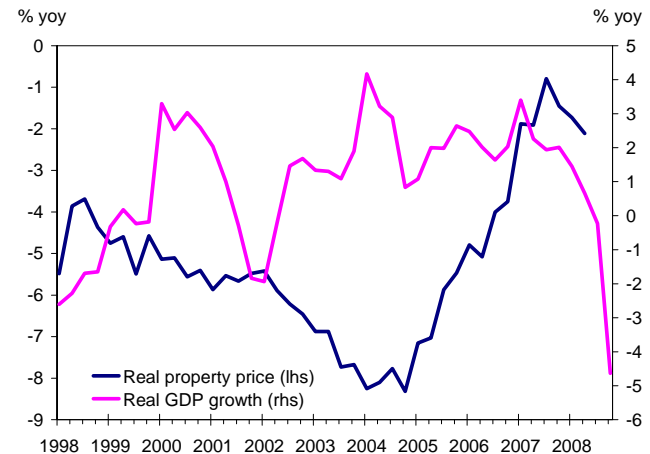
# Short-term outlook: International experience

## US Real Estate and Business Cycle



Sources: Datastream and BBVA estimates.

## Japan Real Estate and Business Cycle

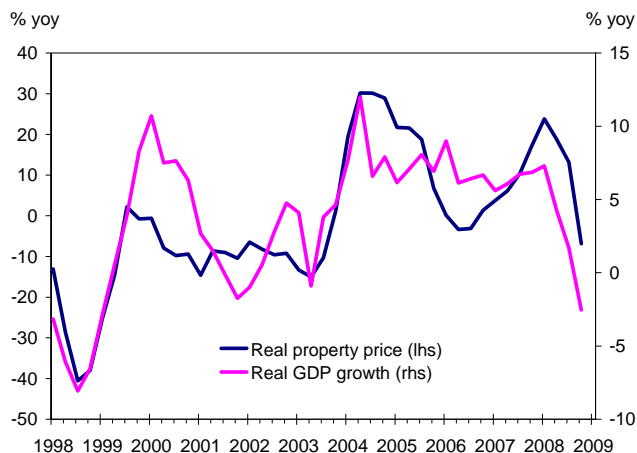


Sources: Datastream and BBVA estimates.

- In the US, there did not appear to be a relationship between property prices and real GDP growth before 2004. The collapse of the real estate bubble in the US has been weighing on real GDP growth since then.
- The burst of real estate bubble led to Japan's lost decades. The damage to the bank's balance sheet has been large. As a result, economic growth has been anemic.

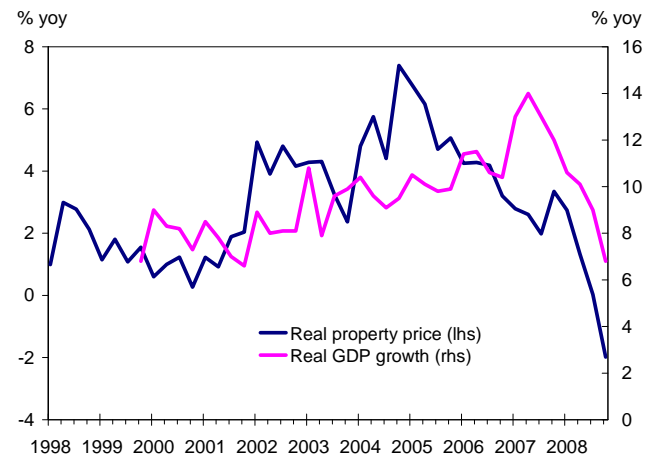
# Short-term outlook

## Hong Kong Real Estate and Business Cycle



Sources: CEIC and BBVA estimates.

## China Real Estate and Business Cycle



Sources: CEIC and BBVA estimates.

**The relationship between real estate prices and real GDP growth has been quite close in both Hong Kong and China.**

## Short-term outlook

### Expected Time to Sell out the Existing Stock of Floor Space

| Assumption on selling speed  | Date of Sell out |
|------------------------------|------------------|
| Same as in 2008              | Nov 2012         |
| Same as in 2009 Q1           | Mar 2012         |
| Average of previous 10 years | Oct 2014         |
| 80% of 2008 transaction      | Oct 2013         |

*Sources: Wind and BBVA estimates.*

**A downward price adjustment appears to be inevitable in the coming economic downturn. Given there is not much over valuation at the national level, our forecasts for the national level was about 5-10%.**



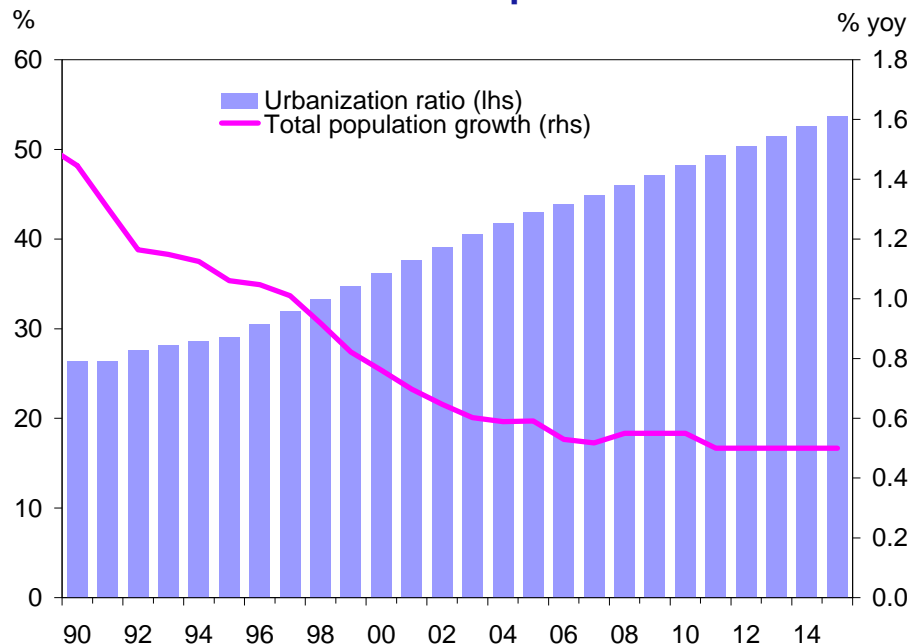
## Hard-landing can be avoided

**We believe it would be important to consider additional measures to support the market. Here are some proposals**

- **Local policy initiatives to reform residency registration system is key to stimulate demand.**
- **More government-provided low-price housing for low-income and middle-income population without stringent income test at this juncture may create wrong incentives, as experienced in Hong Kong in 1998.**
- **Accelerated urban renewal program will help create demand through fast depreciation of old housing stocks whose quality is already in need of rapid upgrade.**
- **Continued adoption of well-tested and low-risk mortgage backed securities will make housing finance inexpensive and help reduce risk concentration in commercial banks. In addition, REITs could also be a useful means for real estate developers.**

# Bright long-term outlook

## Urbanization and Population Growth



Sources: United Nation Database and CEIC

**Favorable structural factors such as fast income growth, rapid urbanization, high population density, and high depreciation rate in housing stocks all bode well for great long-term investment potentials.**

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BBVA

7 May 2009