

Real Estate Financing in China

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Global Real Estate

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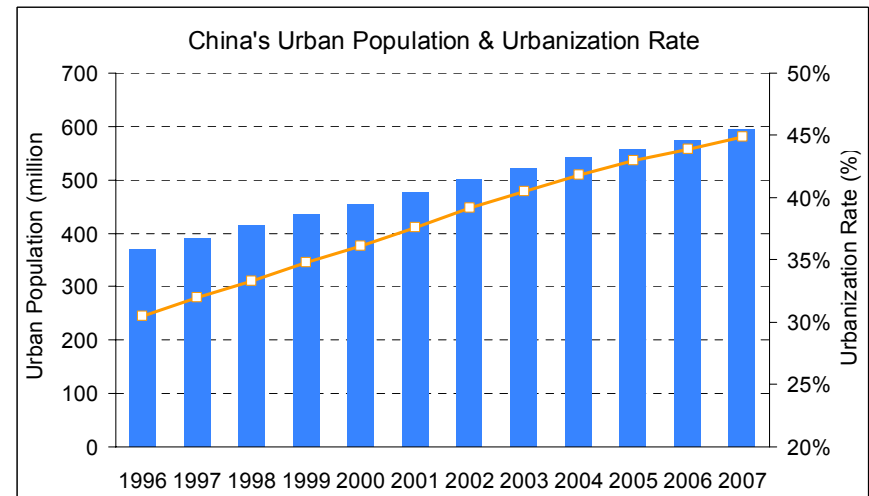
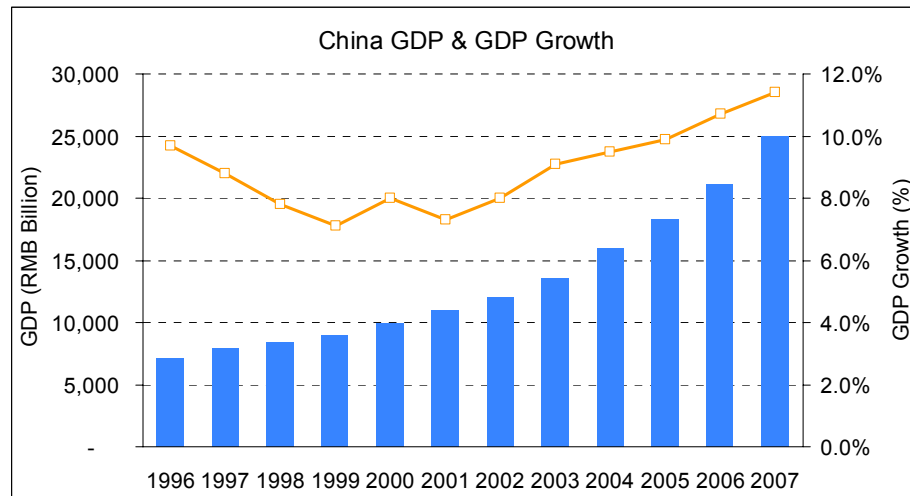
Outline

- ◆ **Market overview**
 - Favorable long-term market fundamentals remain intact
 - But watch out: It's a wacky world out there right now!
- ◆ **Snapshot of China's real estate industry growth**
- ◆ **Household mortgage lending – still a better performing asset for banks**
- ◆ **Improving affordability for households**
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 - A brief introduction to Global Real Estate, UBS Global AM

Long-term strong market fundamentals remain intact

High and sustainable economic growth

- ◆ China is one of the world's fastest growing economies, averaging close to 10% p.a. GDP growth, and expected to continue at this pace for several years
- ◆ Positive outlook for continued increase in household income
- ◆ Growing domestic consumption market and improving living standards



China GDP (RMB Billion)



China GDP Growth %



Urban Population (million)



Urbanization Rate %

Source: National Bureau of Statistics of China

Favourable market fundamentals

- ◆ Growing population
 - Population should continue to grow for many years, though at a slower pace, with close to 10 million babies expected to be born per year
- ◆ Rapid urbanization
 - Close to 17 million rural inhabitants migrating to cities every year
 - Expected reform of the Hukou system, the 50 year old household registration system that has restricted household mobility, could unleash a substantial amount of new demand for housing in urban areas
 - Over 100 Chinese cities currently have more than one million people
 - Expected to grow to 150 cities with over 1 million inhabitants by 2025, according to the United Nations
- ◆ Increasing rate of household formation
 - Average size of households in Chinese cities is declining, resulting in an increasing rate of household formation
- ◆ Rapidly growing number of middle-income households
 - The proportion of China's middle income class is expected to expand from 5% of total households in 2007 to 45% in 2020, according to China's National Bureau of Statistics¹

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China's National Bureau of Statistics states that households with an annual income ranging from RMB 60,000 (USD 8,570) to RMB 500,000 (USD 71,430) should be categorized as middle class

But watch out: it's a wacky world out there!

- ◆ Many more labor-intensive manufacturing businesses in the Pearl River Delta area are likely to go belly up as the export sector continues to suffer for the worldwide economic recession, spreading to the other regions of the country.
- ◆ Profitability will come under pressure. 90% of Chinese bank profit comes from interest. Up to 4 base point hefty interest spread banks enjoyed in the past few years are going to end with the new PBoC bench mark rate lowered 3 times already in the past few months.
- ◆ Banks will see more not-performing loans as economy slows and more business borrowers go bankrupt.
- ◆ It's becoming very difficult to get offshore loans for real estate project financing and it's going to get worse.
- ◆ Many lenders are having their own financial difficulties. Those who can still lend are demanding bigger spreads or demanding higher debt service coverage ratio.
- ◆ Residential market correction has put some households into negative equity situation – a surge in loan defaults.
- ◆ The crisis is still ongoing and with all kinds of rumors flying around – we are not in the post-financial-turmoil yet.
- ◆ Investors are still very unsettling. Prefer to wait for signs that the turmoil in financial markets was nearing its end. This creates enormous pressure on developers' presale cash flow which normally counts about 30%+ funding source

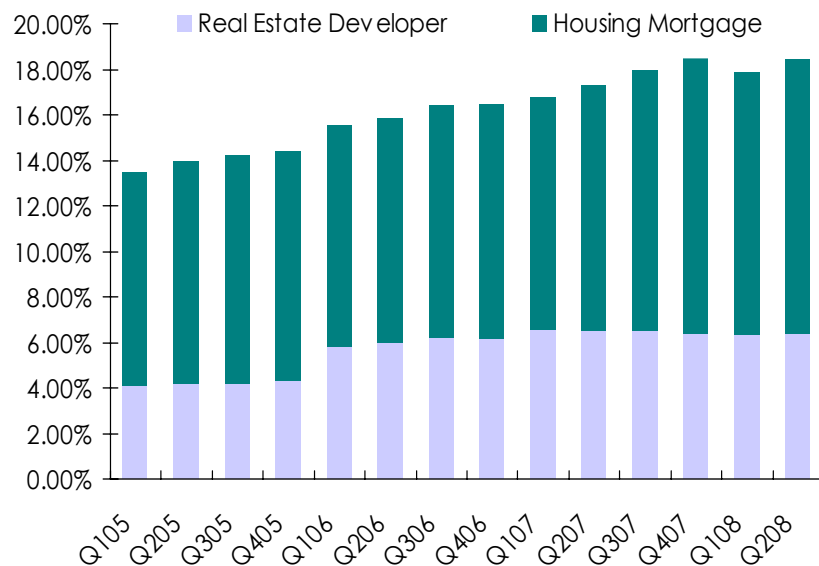
A snapshot of China real estate industry growth

- ◆ National housing price index nearly doubled, and sales grew by around 20% annually in the past decade.
- ◆ Real estate industry has become a pillar industry in China's economy and closely interconnected with other industries. Real estate investment accounts for 18% of Fix Asset Investment (FAI), which is a key driver of GDP growth. Land sales revenue has become major part of local government revenue in many cities.
- ◆ Per capita living space doubled in the past two decades, from 13.5 sqm in 1989 to 28.2 sqm in 2007, but still 7 sqm below the target of 35sqm proposed by the government
- ◆ Development loan and mortgage loan account for 20% of total bank loans. Even higher for non national commercial banks.

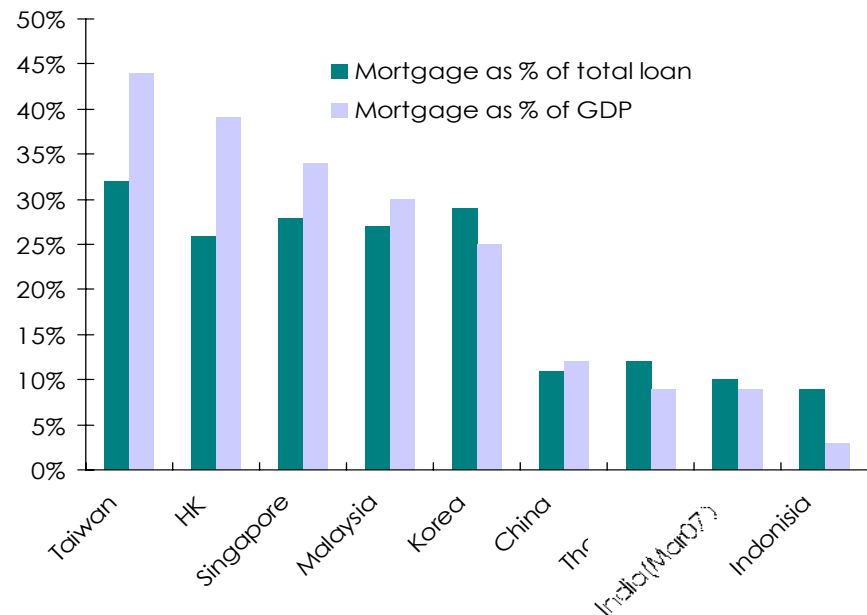
Bank loans to real estate – 20% of the total loans

- ◆ Banks lend to the housing sector in two main forms: mortgage lending to finance purchase of houses and lending to property developers for construction and investment. Together they account for less than 20% percent of total bank lending.
- ◆ According to one Gemdale's statistics, 32% of its customers bought house with no mortgage. For those use leverage, down payment rate is around 37%.

Housing sector loans are less than 20% of total loans



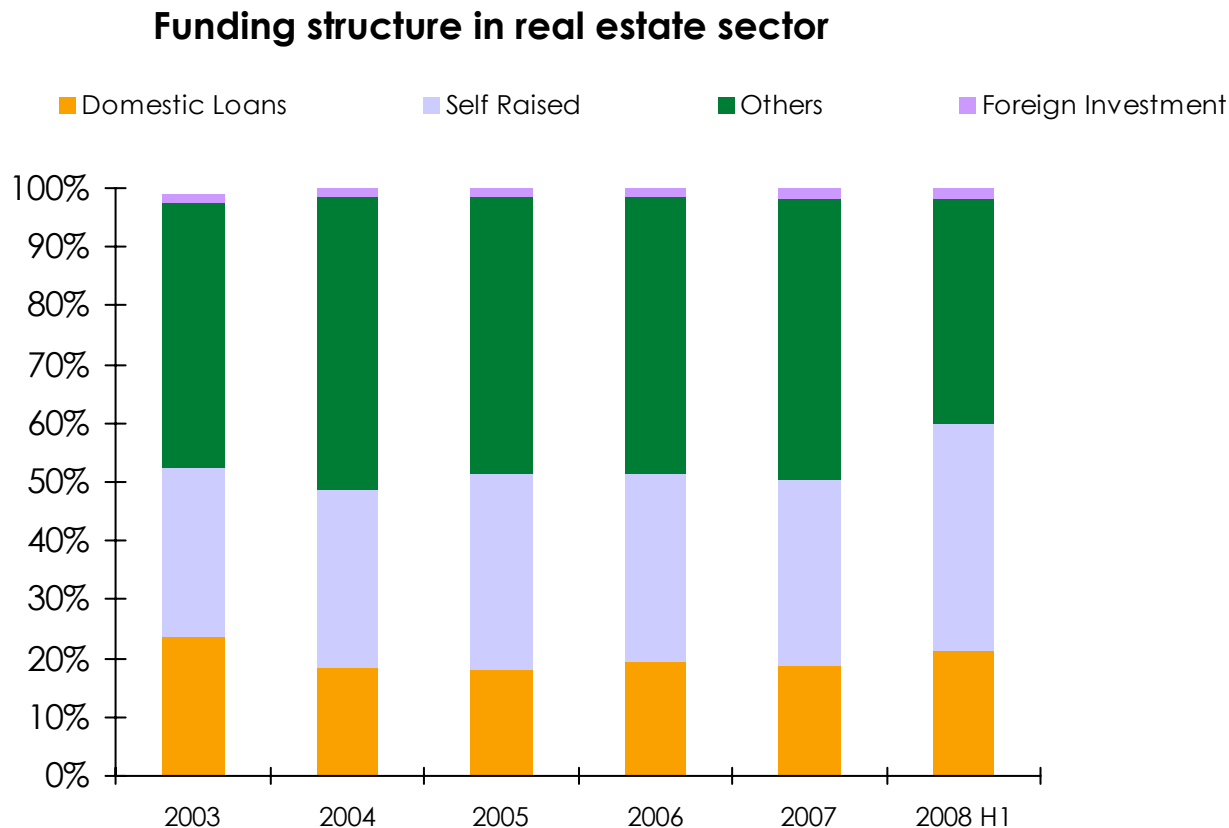
Mortgage to total loan percentage in China



Funding structure in real estate sector

- ◆ In 2007, nearly 55%-60% of funding in residential sector comes from banks.
- ◆ The domestic loans (development loans) account for 18.7% of total funding. Funding from other channels, which includes presale proceeds (nearly 70% of which are mortgage loans), accounts for 48%.

- ◆ FDI only accounts for 1.7% of total funding in the real estate sector in China in 2007. FDI in real estate is concentrated on high-end housing segment – it is misplaced to think that foreign money has driven up the real estate price.



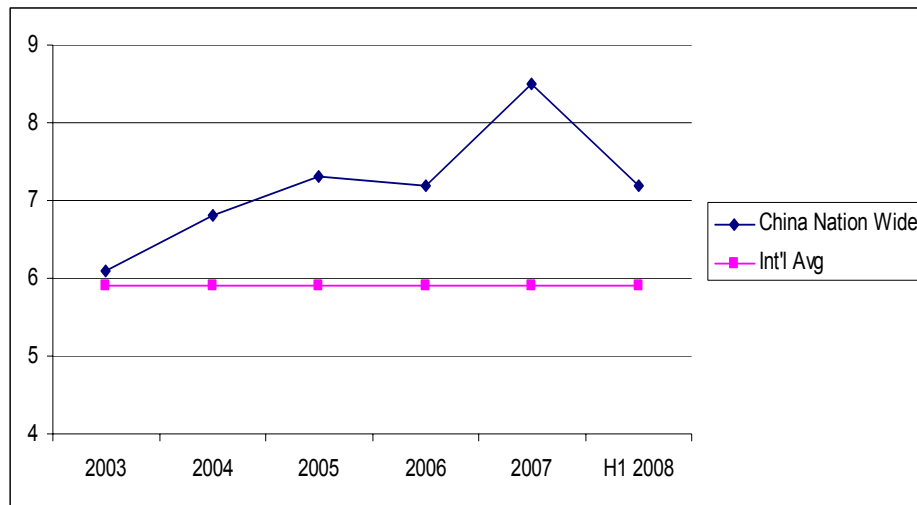
Household mortgage – still a better performing asset

- ◆ Despite other banking problems, mortgage lending is one of the most profitable businesses for banks and safest asset in Chinese banks' portfolio.
- ◆ Mortgage lending is tightly regulated in China.
- ◆ Down payment is 30 percent for first-time buyers and 40 percent or more for buyers who have a mortgage on another home. Recently, they are lowered to 20 and 30, respectively.
- ◆ Normal term is 20 years; however, the term of a mortgage ends when the borrower turns 55, for a woman, or 60 for a man – never would have been possible in the US. Recently, this has been lifted up to 30 years.
- ◆ Short durations for mortgages mean quicker equity build-up for homeowners – less likely to default.
- ◆ Banks enjoy wide positive spreads – raising most of their money through short-term household deposits on which they pay an interest rate of just 0.7 percent and lending at rates of 6 percent or more.
- ◆ Relative lack of sophistication of China's mortgage system has kept its real estate bubble from expanding into a financial crisis. Mortgage securitization has never taken off in China. Banks like to hold the mortgages they issue.

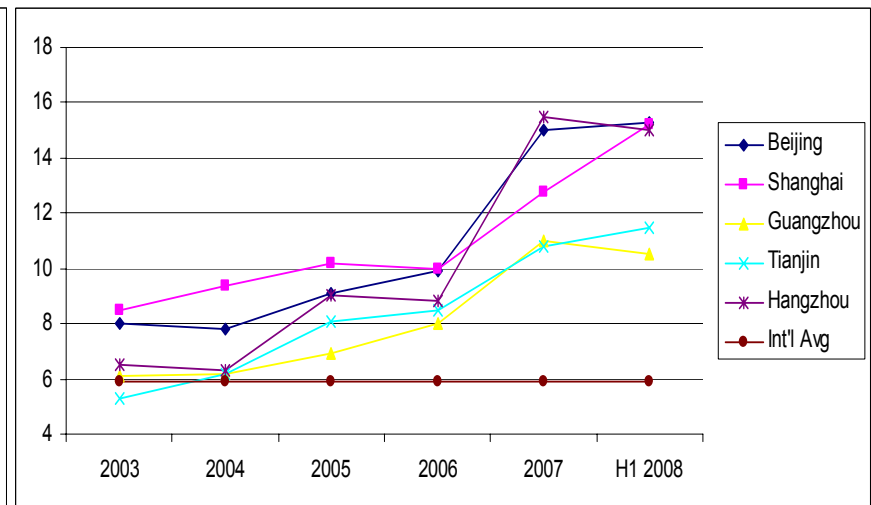
Affordability trend – price to income ratios

- ◆ A survey of the price to income (P/I) ratios in selected first- and second-tier cities between 2003 and 2008 shows the extent to which the affordability of housing has generally deteriorated in urban China.
- ◆ However, in H1 2008 the national average P/I ratio dropped from 8.5 to 7.2. All first tier cities and selected second tier cities reflected the same trend.

Affordability Trend, China as a whole



Affordability Trend, Tier 1 & 2 Cities



Source: UBS estimate, CBRE Research

Improving affordability for households

- ◆ World Bank 1998 study shows average P/I ratio on group with average annual household income between US\$4,000 – 5,999 was 5.4 while the group with income between US\$6,000 – 9,999 was 5.9. Under both income ranges, the Chinese cities overall seem to exceed the average of the international level.
- ◆ Nonetheless, given publicly available income data mainly cover the government sector and state-owned enterprise salary, which generally are lower than private sector, true average income counting both private sector and grey income might be in the range of 20% to 50% more than published data.
- ◆ We believe that a P/I ratio of 10 for tier-one markets, 8 for tier-two and 7 for the rest of China are reasonable.
- ◆ Overall real disposable household income expected to grow faster than home price
- ◆ China's real estate bubble has turned into a bust in many cities – price has come down substantially, 30% to 50% in some cities.
- ◆ Reduced mortgage rates, lower down payment, and lower stamp tax as a result of new policy changes – risk: might not be enough to reverse growing gloom in China's housing market.
- ◆ At the right price levels, China has no shortage of buyers. In the mid to long run, market always comes to a new equilibrium after supply and demand fundamentals does its job.

New policy changes

- ◆ Unlike in US, the Chinese government, starting in 2004, tried to reduce real estate speculation through administrative measures such as increasing required reserve ratio, setting real estate lending quotas for each bank, raising benchmark lending rates, and increasing down payment levels.
- ◆ As a result, a policy-induced market correction started towards the end of 2007
- ◆ In light of the financial turmoil and widely expected global economic slowdown, the Chinese government announced a series of measures to boost the real estate sector and to support residential prices.
 - Lowering the benchmark interest rates three times since mid September
 - Reducing banks' RRR
 - Lowering down payment requirements and cutting transactional taxes (stamp tax and land value-add tax)
- ◆ Policy changes aiming to boost the real estate industry and bring the wait-and-see potential buyers back to the residential markets – still early to see any real impact.
- ◆ The move marks an initial unwinding of property tightening measures that the government put in place over the last few years, to counter what were then rapidly rising prices and a skyrocketing inflationary pressure.

Risk management on residential development financing

- ◆ DD on borrower's reputation, credit-rating and financial condition.
- ◆ DD on project feasibility and DSC analysis.
- ◆ Cover bank's debt service before shareholders' dividend distribution.
- ◆ Require four certificates before releasing a loan: land use certificate, planning certificate for land to be used for construction, planning certificate for construction project and construction certificate.
- ◆ Equity no less than 35 percent of total project cost.
- ◆ Typical residential project - 1/3 equity to purchase land, 1/3 bank loan and 1/3 presale revenue to fund construction.
- ◆ Most cases LTV is less than 60 percent – typically 35% to 50% for residential.
- ◆ Control cash account: developers need bank approval to use project's cash.
- ◆ Require collateral or corporate guarantee or third party guarantee.
- ◆ Land acquisition to be funded by equity only, no debt.
- ◆ Monitor the use of the loan.

Investing in China real estate – issues & restrictions

◆ Transparency

- Semi-transparency for tier one cities as per latest JLL GRE Transparency index*
- Lack uniformed taxation and title registration process
- No China RE Investment index - lack of accurate historical transaction data, current statistics is not adequate, and no “standard” data
- Longer DD time hence higher transaction cost

◆ Regulatory

- Circular 171 – Prohibit direct offshore holding China RE asset, must set up domestic WFOE or JV
- Circular 50 – Tightening the FDI in China RE approval and registration process
- Circular 130 – FDI on China RE has to be in the form of equity, foreign debt is not allowed; fund repatriation restriction

◆ Liquidity

- Local pension fund not allowed to invest in RE
- Circular 171 restrict overseas investors entrance into China RE market

*Source (http://www.chinadaily.com.cn/bizchina/2008-10/31/content_7161763.htm)

Investing in China real estate – how

CREIT (China REIT) is still not allowed

- ♦ Pure debt play (Mezz. loan and/or development loan at project company level)
 - Entry- Lending to offshore SPV, enter China in the form of equity as circular 130 prohibit foreign debt
 - Security - Hold LURC (land use right certificate, land title) as collateral, and / or control the presale proceeds joint trust account
 - Exit - Repay debt offshore after profit distribution and repatriation
 - Examples - Hypo RE HK loan to local Chinese developer at project level
- ♦ Equity play
 - Project level
 - Entry - Setup offshore SPV, then hold local China WFOE or JV
 - Security - Control the Board of Directors at both SPV and WFOE/JV level
 - Exit - Profit distribution and repatriation (WFOE) or local partner buy out (JV)
 - Examples – ING and Credit Swiss JV with Chinese developer
 - Company level
 - Entry - Sophisticated Fund, Fund Management Company, and Investment Advisory Company structure offshore and on shore, one offshore SPV holds one project Co (WFOE or JV)
 - Operation - Control the Board of Directors at both SPV and WFOE/JV level
 - Exit – Buyout
 - Example – UBS / Gemdale China Fund I

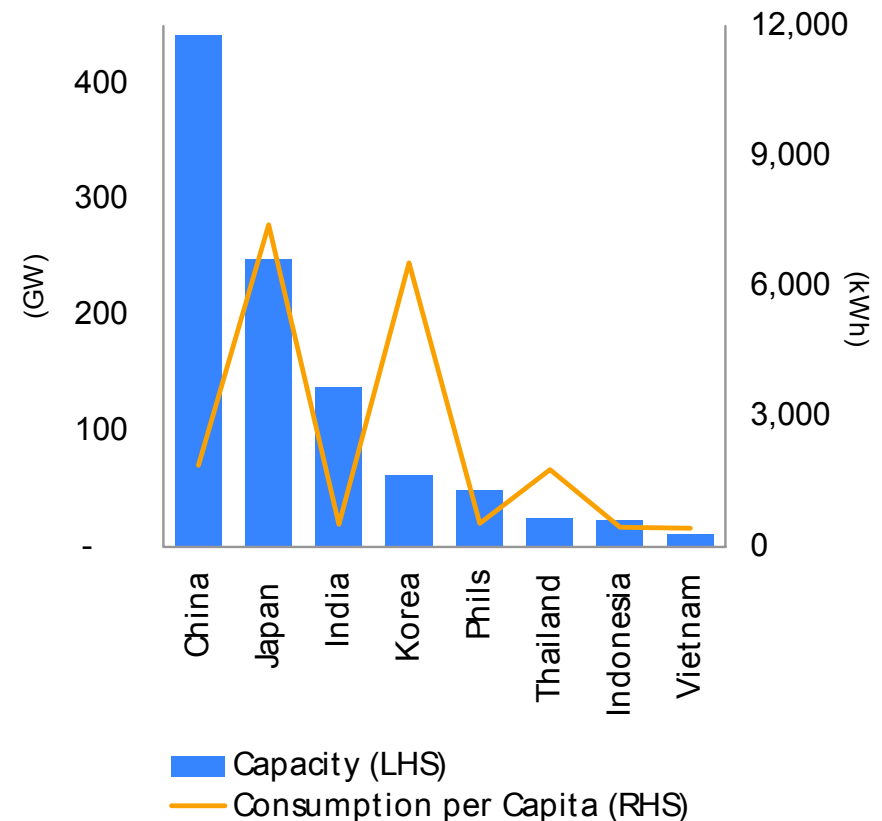
Infrastructure landscape in China

Significant opportunities for infrastructure funds...

China infrastructure highlights

- ◆ Power
 - One of the first sectors to open for private investments
 - Annual additions equal to entire UK installed capacity
- ◆ Roads
 - 45,000km built within 15 years only
 - Good private sector opportunities
- ◆ Airports
 - Strong historical passenger volume growth (over 10%)
 - Air trips per capita still very low
- ◆ Gas distribution
 - Increasing use of city gas in Chinese cities
 - Gas usage to grow (clean energy, fuel diversification)

Electricity capacity / consumption



Source: US Department of Energy (2005)

Infrastructure investment dynamics

Power generation, water, gas and toll roads are fairly open to foreign investments

- ♦ Small minority stakes are available for foreign investors across most infrastructure sub-sectors
- ♦ Majority stakes (or minority stakes with meaningful control) are possible in certain sub-sectors such as power generation, water and toll roads
 - Certain sectors are considered “strategic” (e.g. electricity transmission, large airports, etc.) and are usually controlled by large state-owned enterprises

Investment framework

Perpetual ownership	<ul style="list-style-type: none">♦ Investor owns infrastructure asset indefinitely♦ Common for large infrastructure projects / assets (electricity grid, large ports, etc)♦ Common investment structure for state-owned enterprises; difficult for private / foreign investors to gain control of such projects
BoT / Concessions	<ul style="list-style-type: none">♦ “Build-Operate-Transfer” structures where investors can operate project over a certain timeframe (e.g. 30 years) before project reverts to government♦ Common structure for toll roads, power generation, water plants♦ Frequently used structure for private investors

Investing in infrastructure

How to access infrastructure in China...

	Key characteristics	China context
Listed securities	<ul style="list-style-type: none"> ♦ Investment in listed securities ♦ Liquidity ♦ Observable market price 	<ul style="list-style-type: none"> ♦ Significant opportunities in all key sub-sectors (power, roads, ports, etc.) ♦ Most key players listed in Hong Kong and / or Shanghai
Listed securities funds	<ul style="list-style-type: none"> ♦ Investment in funds which invest in listed securities ♦ Diversification 	<ul style="list-style-type: none"> ♦ China-only infrastructure funds not yet too common ♦ However, EM infrastructure funds have China allocations
Direct asset funds	<ul style="list-style-type: none"> ♦ Investment in funds which invest in unlisted projects / companies ♦ Limited liquidity ♦ Board representation; access to deal pipeline 	<ul style="list-style-type: none"> ♦ China-only infrastructure funds expected to become more common ♦ Currently, most China fund investments are conducted via EM funds
Direct investments	<ul style="list-style-type: none"> ♦ Direct investments in unlisted projects / companies 	<ul style="list-style-type: none"> ♦ Possible for industry players who have technical expertise/relationships ♦ Very challenging for individual or financial investors

Concluding remarks

- ◆ The government is on top of the situation and has taken some wise steps to try to keep the economy growing and help the real estate market.
- ◆ Today looking at any short-term window would not be comforting – things are weaker than they were before.
- ◆ But there is no question that the long term outlook is extremely positive.
- ◆ Banks are still comfortable in lending to high-credit-rating developers.
- ◆ Household mortgage lending remains very profitable.
- ◆ Residential markets are expected to rebound with easing monetary policies.
- ◆ Ways of investing in China's real estate and infrastructure are available, but limited – important to team up with a strong local partner when going direct.
- ◆ The players (especially the offshore lenders) are taking a pause; but they will be back.
- ◆ This (financial crisis) too shall come to pass!

Appendix

UBS Global Asset Management –
Global Real Estate
– www.ubs.com/realestate

UBS Global Asset Management – Global Real Estate

A global business, a local presence

- ◆ Global business investing in:
 - Properties in Asia Pacific, Europe and the US¹
 - Publicly traded real estate securities globally
- ◆ Top-tier real estate investment manager based on AUM globally²
 - Approximately USD 50.7 billion in real estate assets worldwide³
- ◆ Strong investment performance track records
- ◆ Localized, experienced investment management teams
 - US track record dating back more than 30 years
 - 15-plus years managing open and closed ended real estate funds in the UK
 - Swiss funds managed since 1940's
- ◆ Expanding our presence
 - Brazil, China, India, Korea and other emerging markets

¹ UBS Global Asset Management Real Estate has joint ventures in Germany with Siemens AG and in Japan with Mitsubishi Corporation

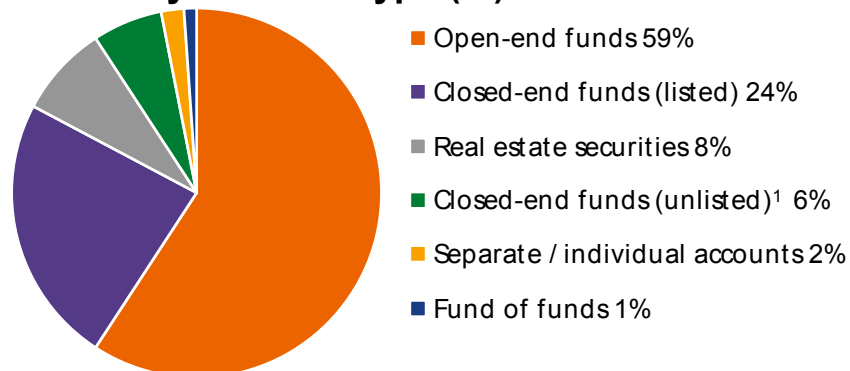
² Pensions & Investments Magazine, October 2007

³ Assets are stated on the basis of gross asset values. Amounts reflect property values at June 30, 2008, where available, and include the assets managed by our joint venture with Mitsubishi Corporation.

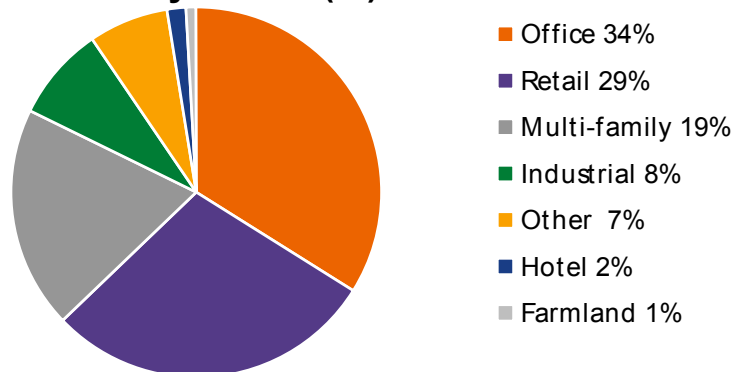
Global Real Estate – Assets under management (AuM)

Total AuM of USD 50.7bn (CHF 51.8bn / EUR 32.2bn / GBP 25.5bn)

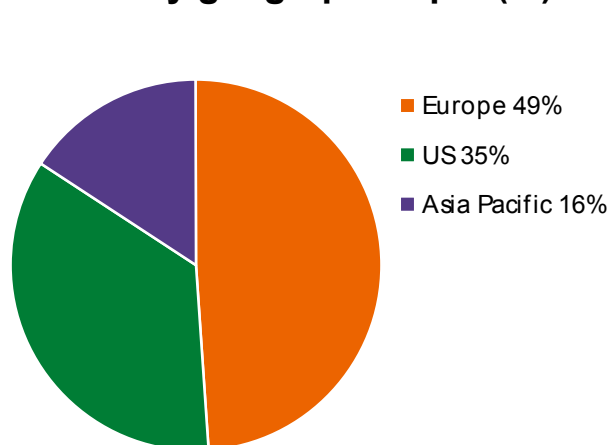
Assets by mandate type (%)



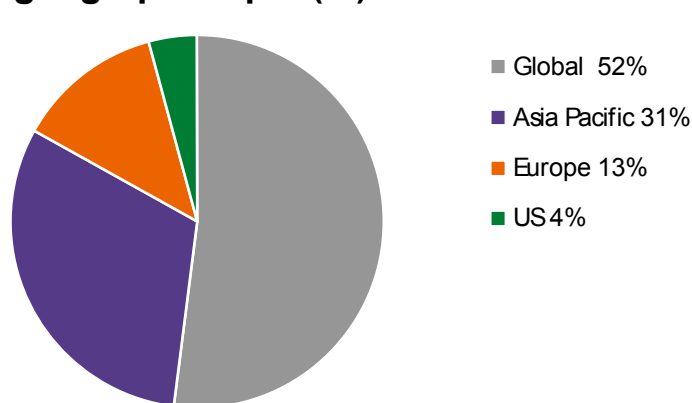
Assets by sector (%)



Assets by geographic split (%)



Real estate securities assets by geographic split (%)



Source: UBS Global Asset Management, Global Real Estate

Notes: Assets are stated on the basis of gross asset values. Amounts reflect property values as at June 30, 2008, where available, and include the assets managed by our joint venture with Mitsubishi Corporation. Data in charts may not sum to total due to rounding.

¹ Assets listed reflect invested capital only and not committed

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