

Chinese Housing Markets: What We Know and What We Need to Know

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Documentation—Prices and Quantities

- What Do These Data Show?
 - Strong trend price growth in aggregate in land and house values
 - Economically large variation about that trend
 - Substantial heterogeneity across markets
 - Extremely strong real price growth in Beijing, but real land values have fallen substantially the past two years in Dalian
 - Transactions Volume
 - Has fallen in recent quarters both in terms of land parcel sales and in the amount of new housing sold

Documentation: A Closer Look at Land Prices Across Major Markets

- Chinese Residential Land Price Indexes (CRLPI)
 - Wharton-Tsinghua-NUS collaboration (Gyourko, Wu, Deng)
 - 35 major markets, not just east coast or East region cities
 - See next slide
 - Transactions-based, not appraisal-based
 - Full samples of land sold by local governments to private residential developers
 - Constant quality price indexes created

城市覆盖范围 City Coverage

- 目前CRLPI指数覆盖全国35个大中城市。
Currently CRLPI covers 35 major cities in mainland China.
- 这些城市占据了全国新建商品住房市场约50%的市场份额。
These cities contribute to about 50% of the new home market in the whole country.

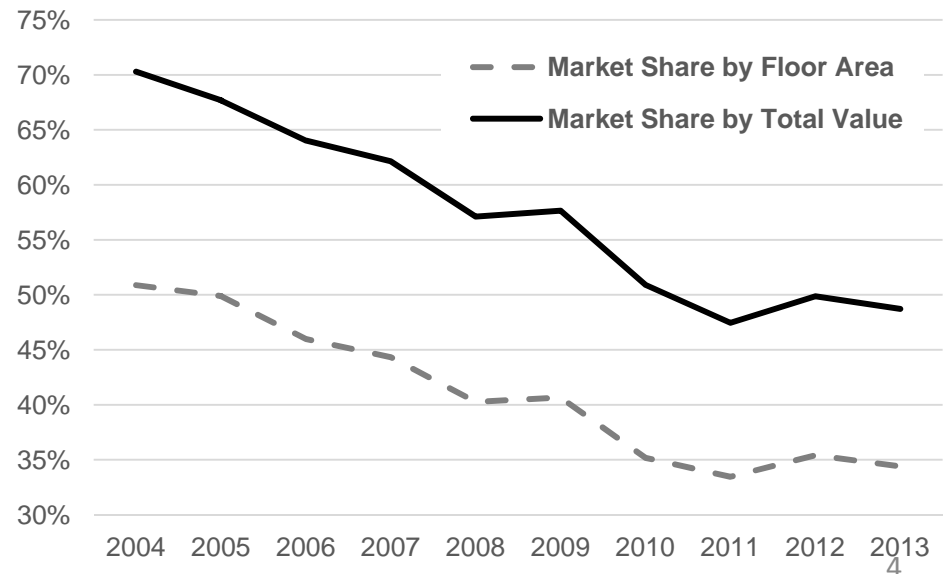
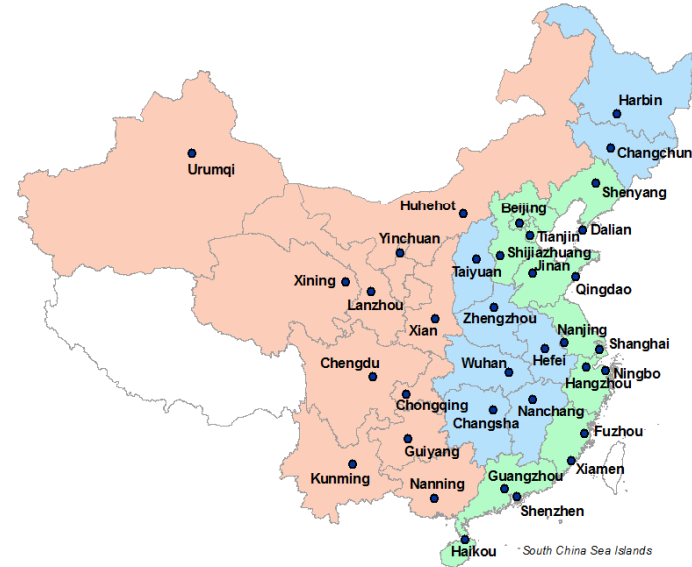


Figure 1: Chinese National Real Land Price Index
35 Markets, Constant Quality Series
(Quarterly: 2004q1 – 2015q3)

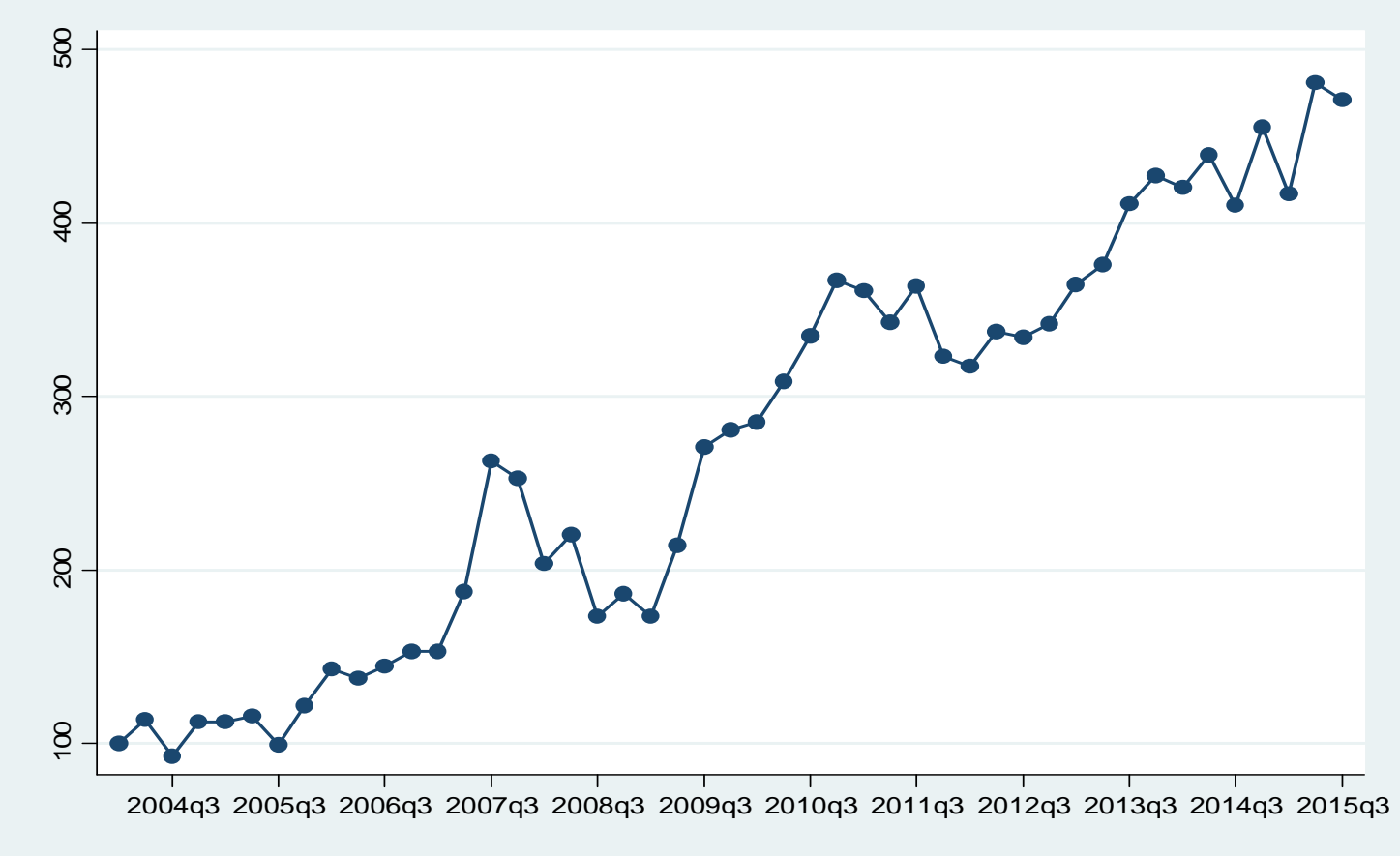
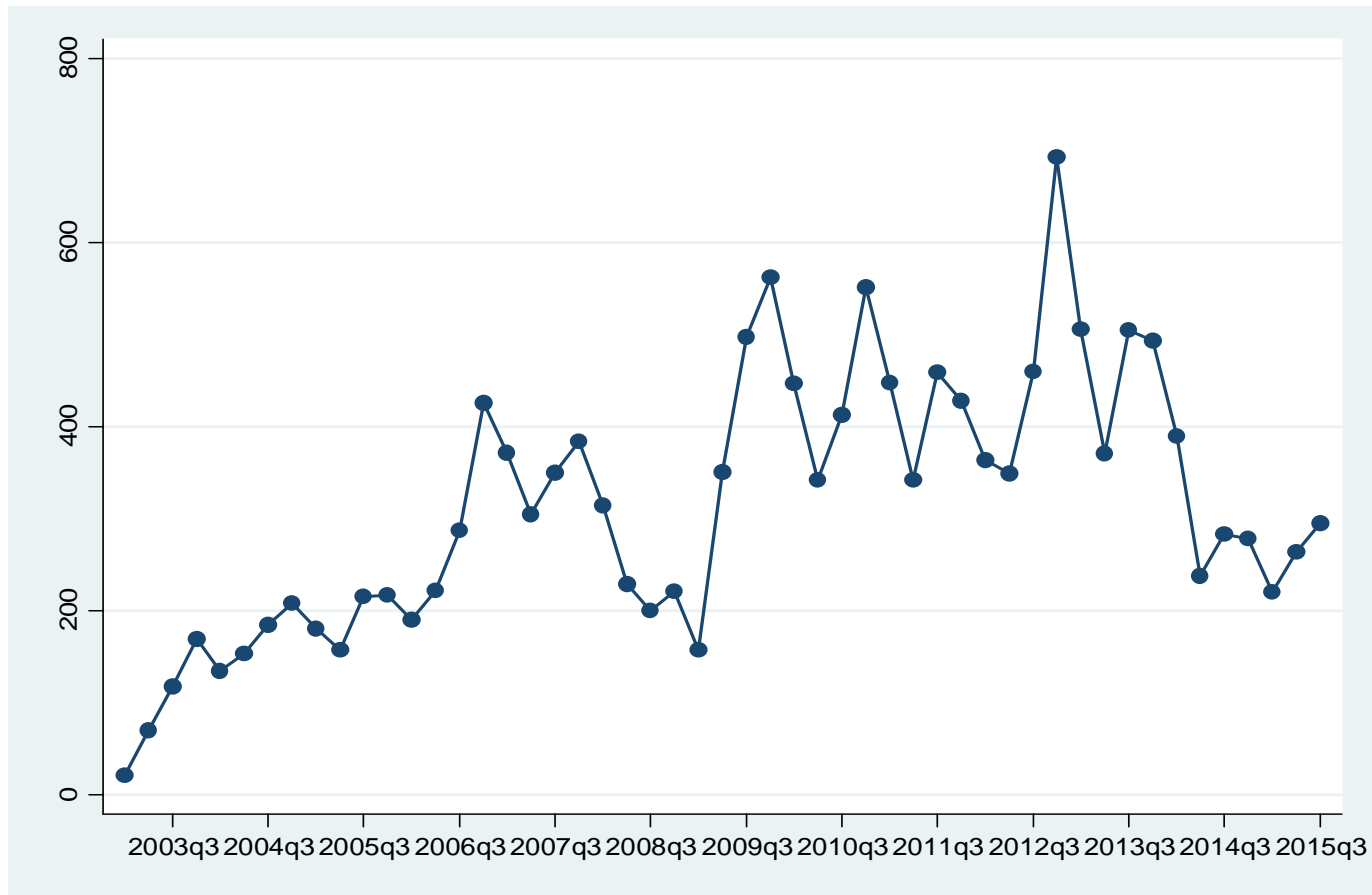


Figure 2: Number of Parcels Sold
35 Markets (Quarterly: 2004q1 – 2015q3)



Chinese Housing Unit (Really Space) Growth 2007-2014

Figure 6: Year-Over-Year Growth in Floor Space Sold,
Newly-Built Housing Units, 2007(1)-2014(4)

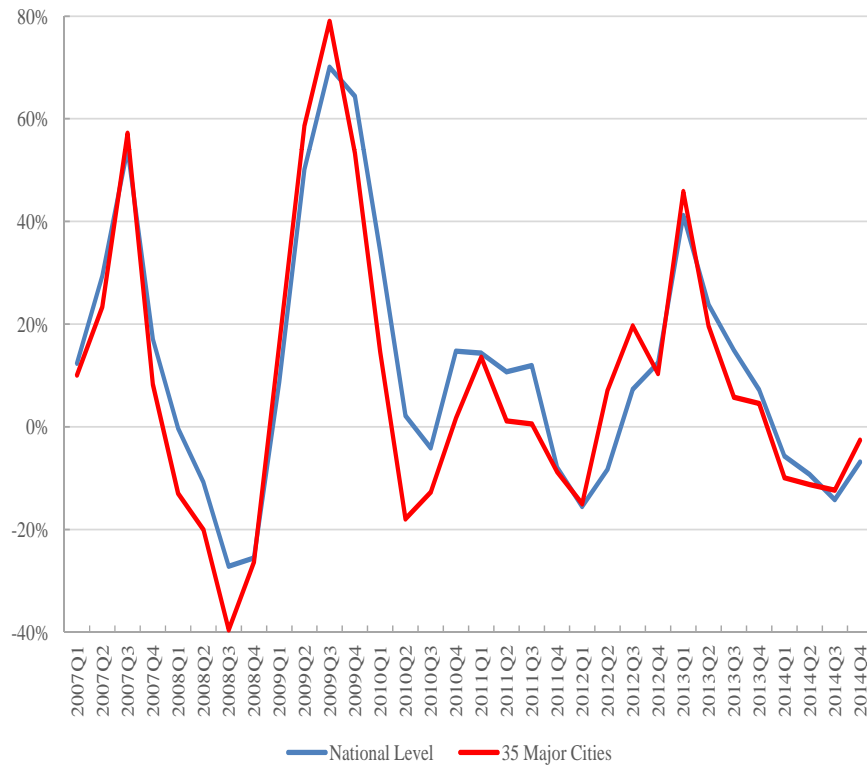
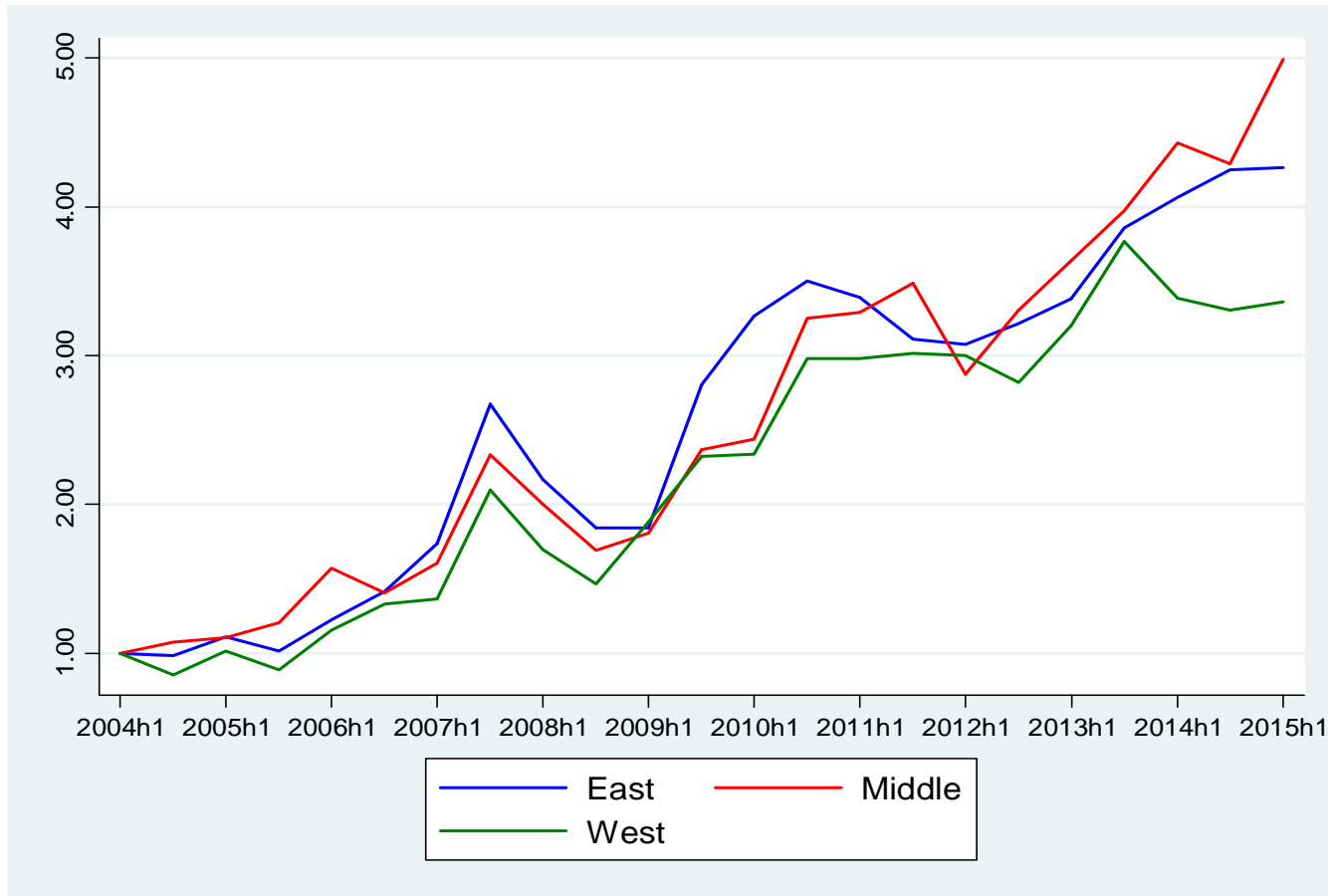
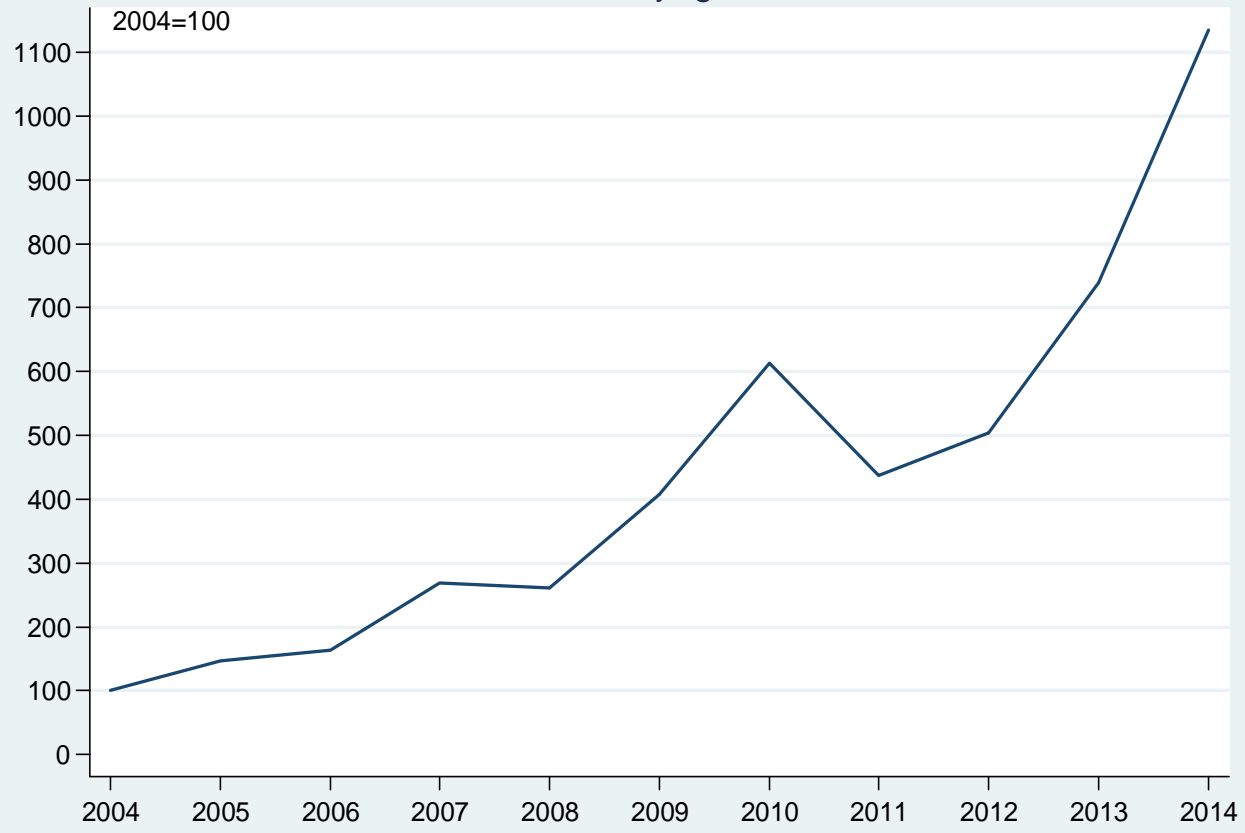
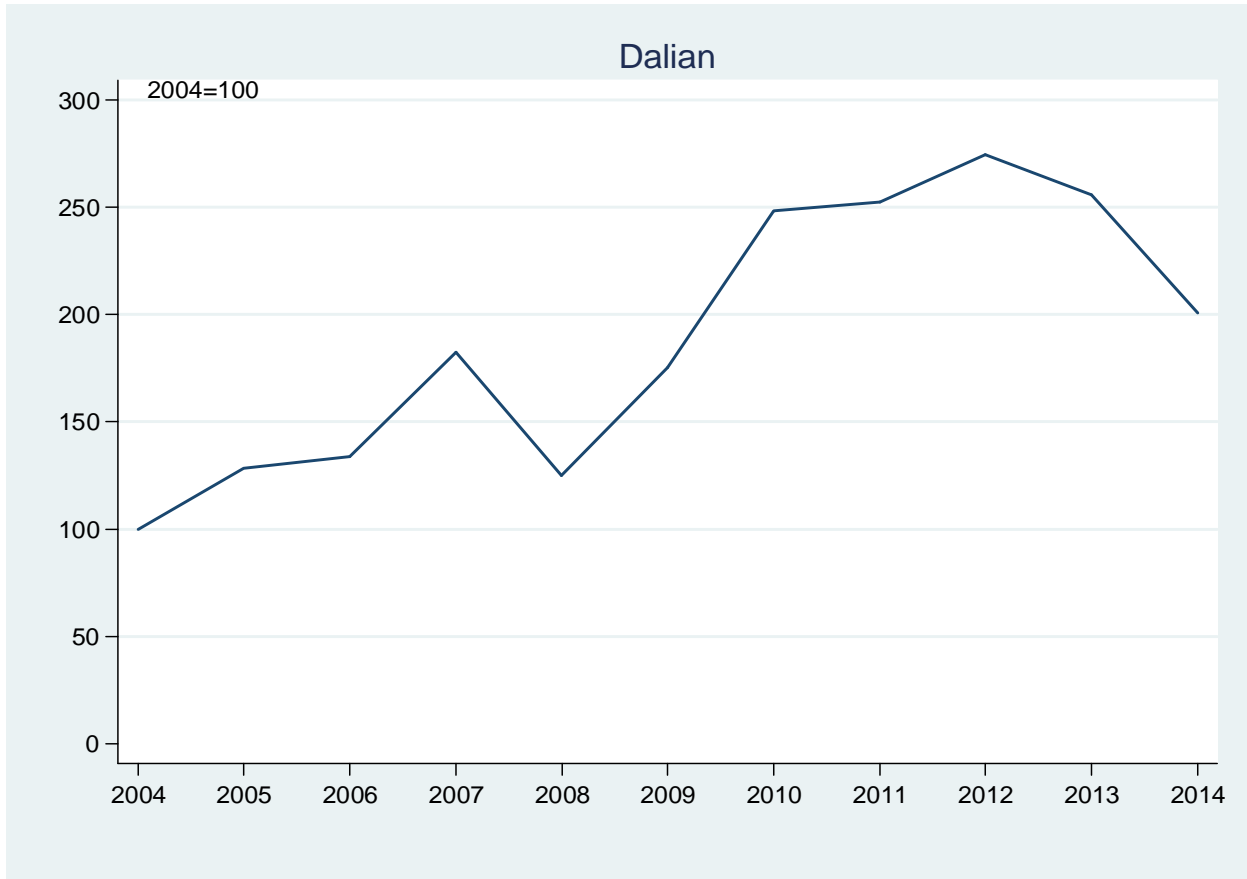


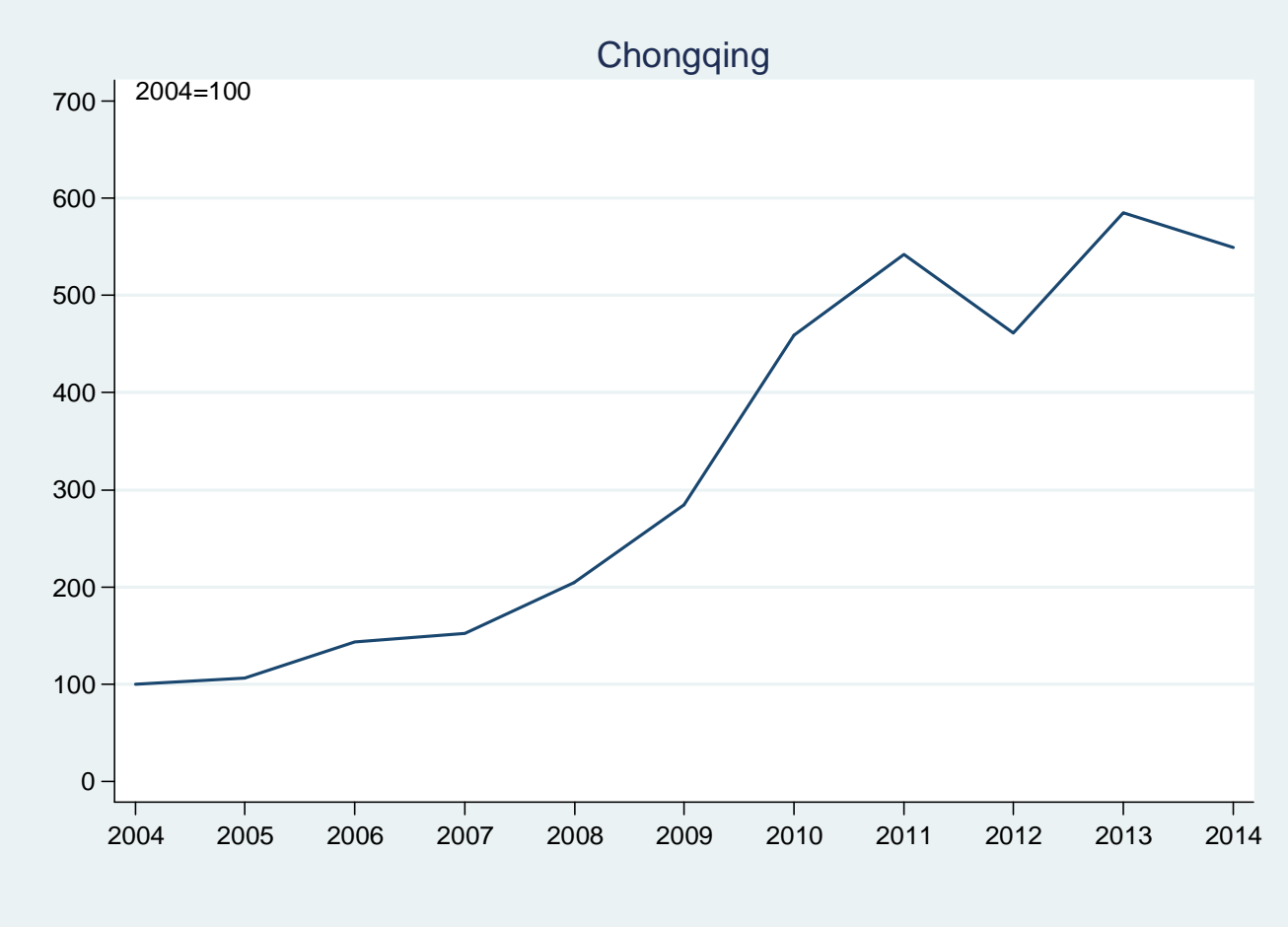
Figure 3: Chinese Regional Real Land Price Index
East, Middle and West Regions, Constant Quality Series
(Semi-annually: 2004h1 – 2015h1)



Beijing







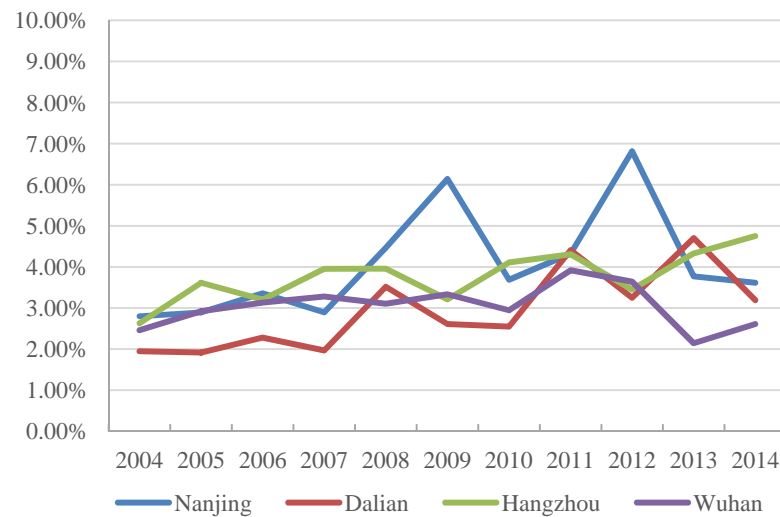
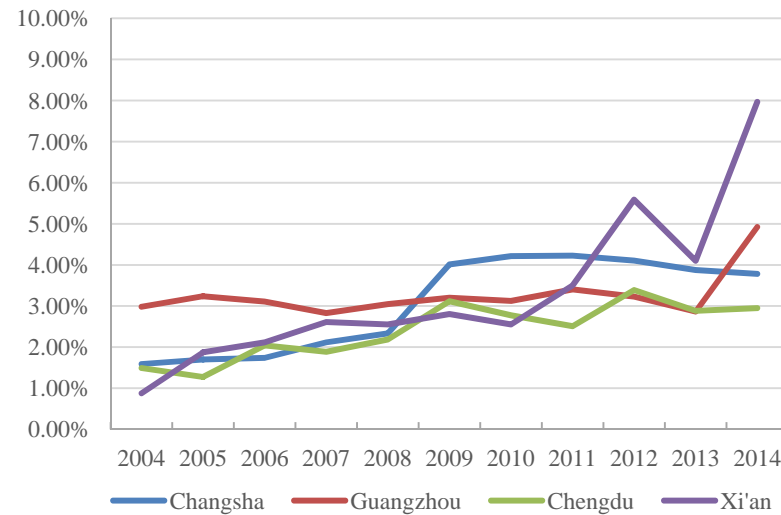
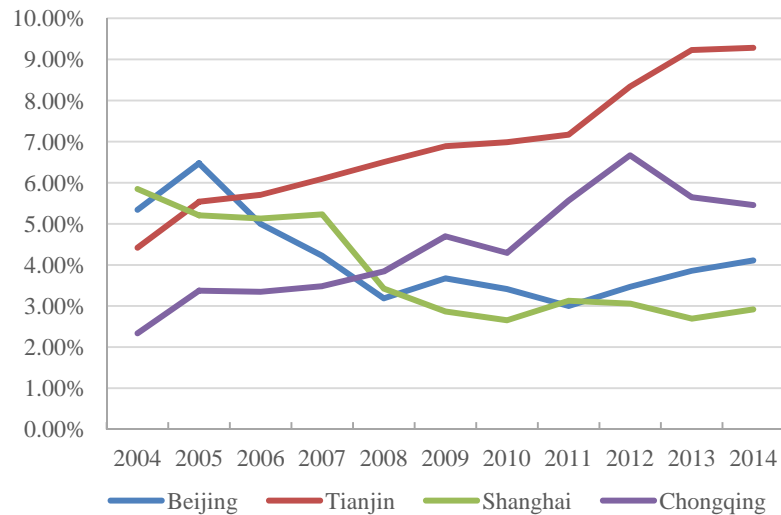
What Do We Need to Know?

- Better measures of price and quantity are not enough
 - Cannot tell all that much just by looking at P and Q
 - Intersection of supply and demand
- What do local market supply and demand fundamentals look like in Chinese housing markets?

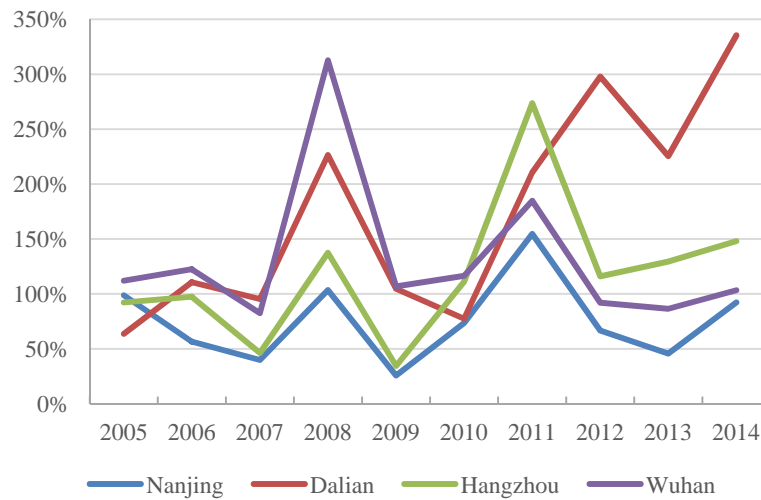
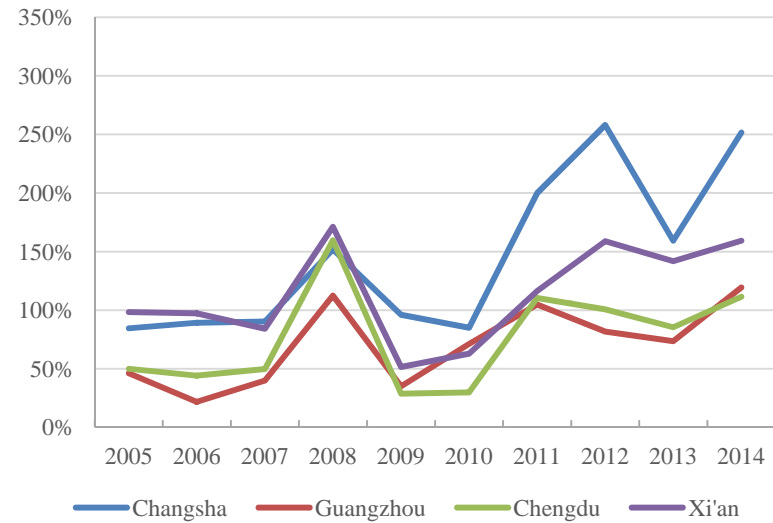
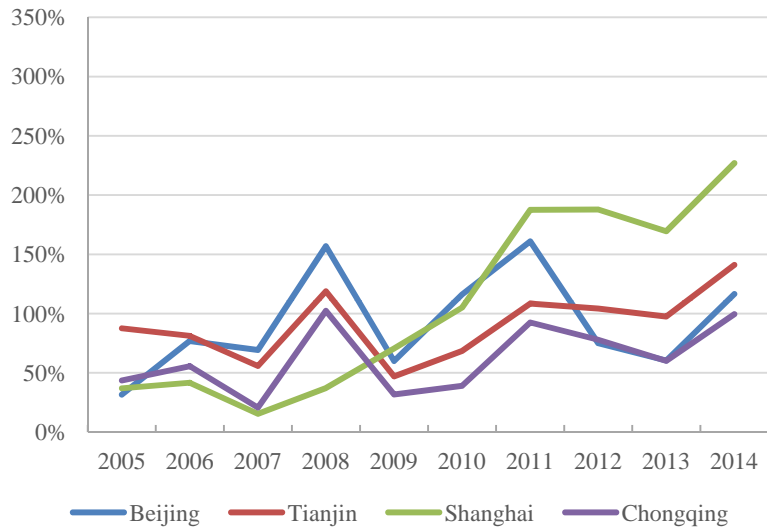
Metrics on Supply-Demand (Im)Balances

- Annual new construction relative to market size
- Unsold inventory relative to sales volume in market
- Vacancy rates in nine provinces
- Price-to-rent ratios
- Price-to-income ratios
- Breakeven real appreciation expectations from Poterba user cost equation

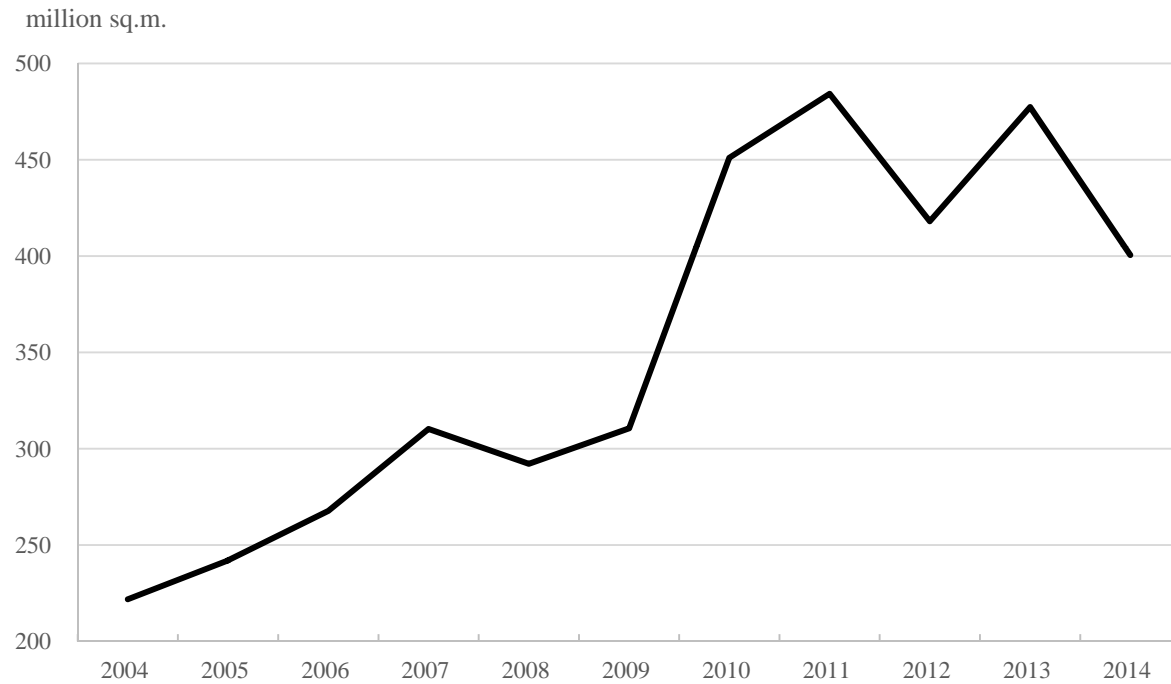
Annual New Supply As Share of 2010 Stock



Unsold Inventory Held by Developers As Share of Transactions Volume in Market

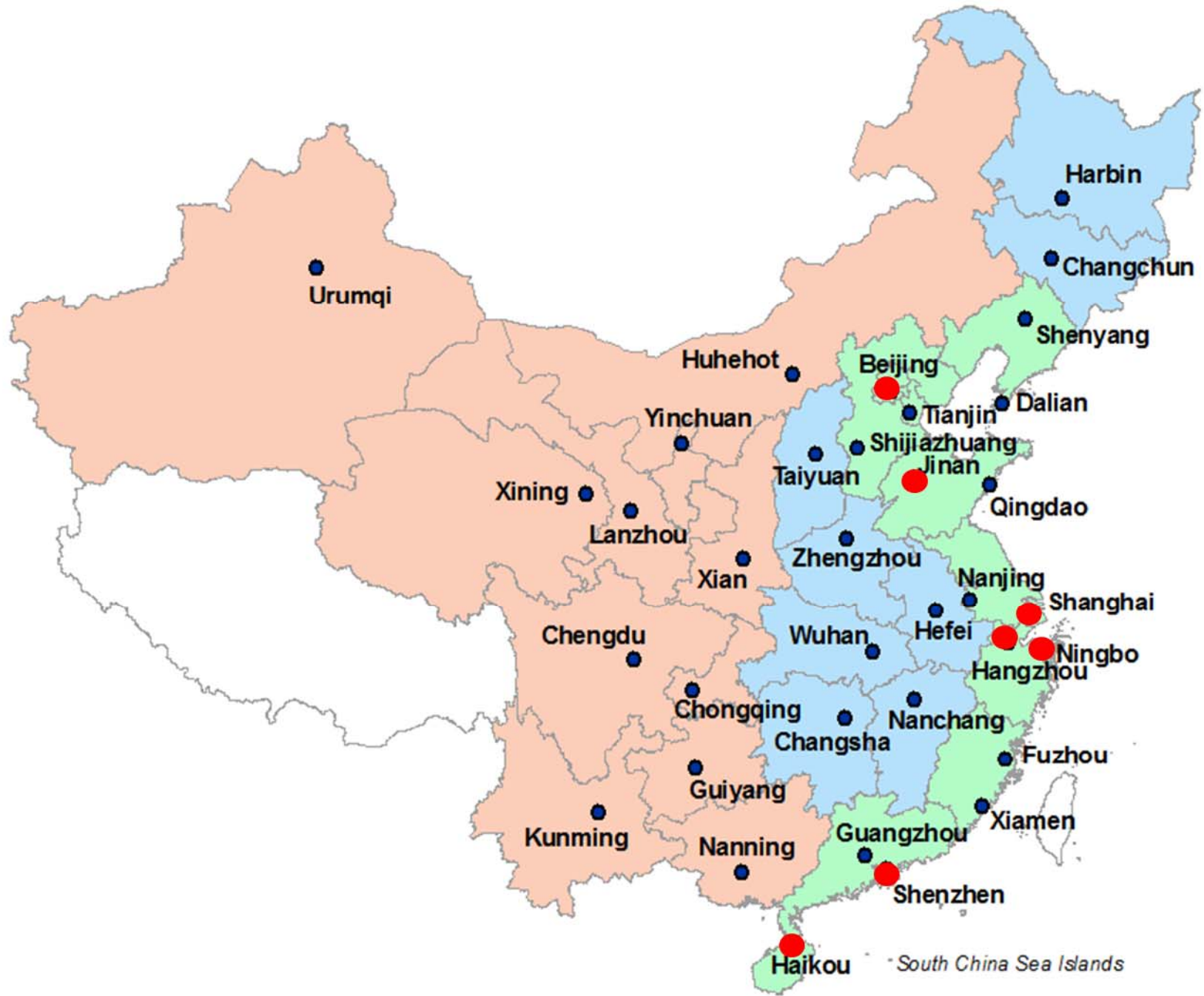


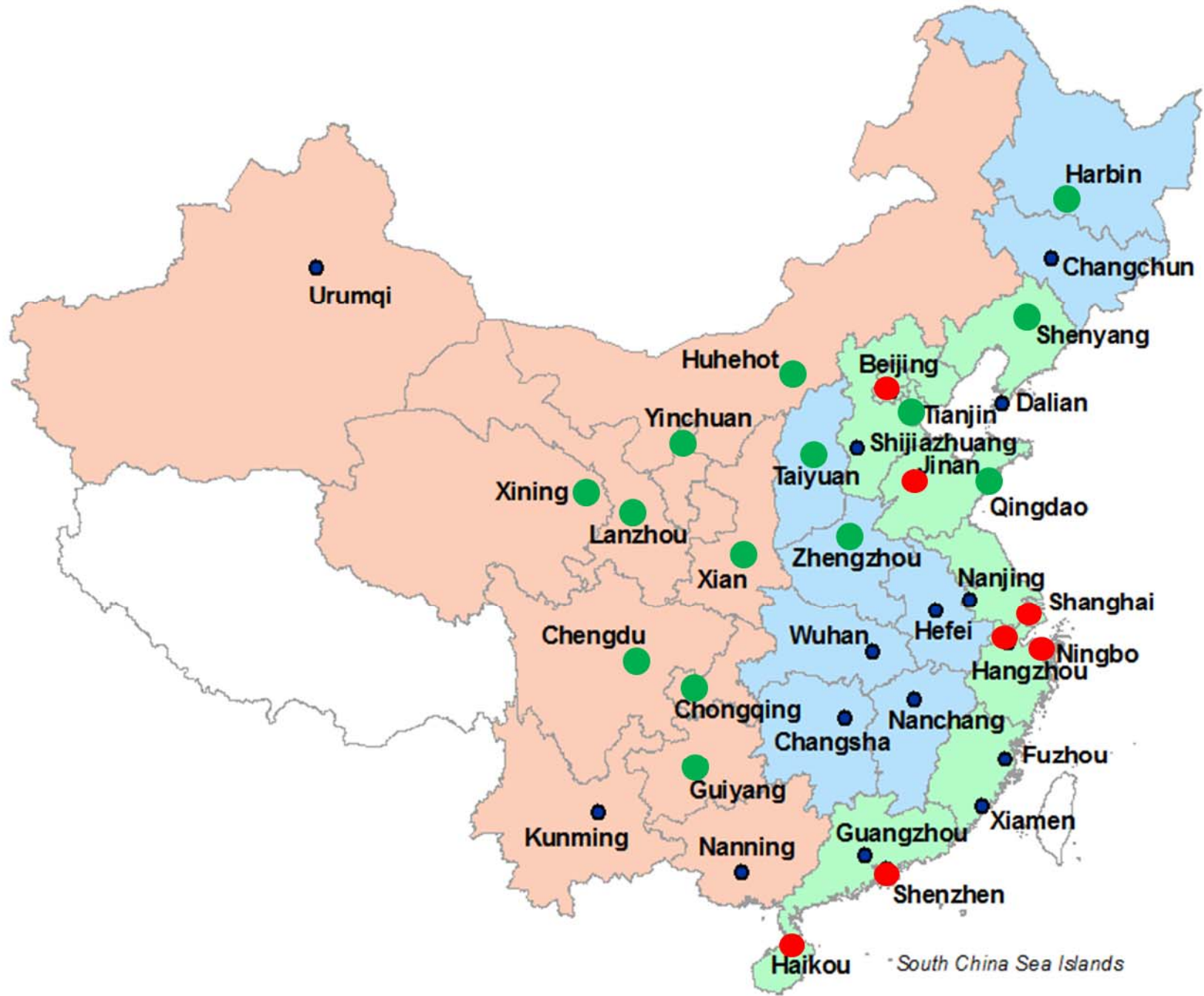
Aggregate Space Delivered 35 Major Markets

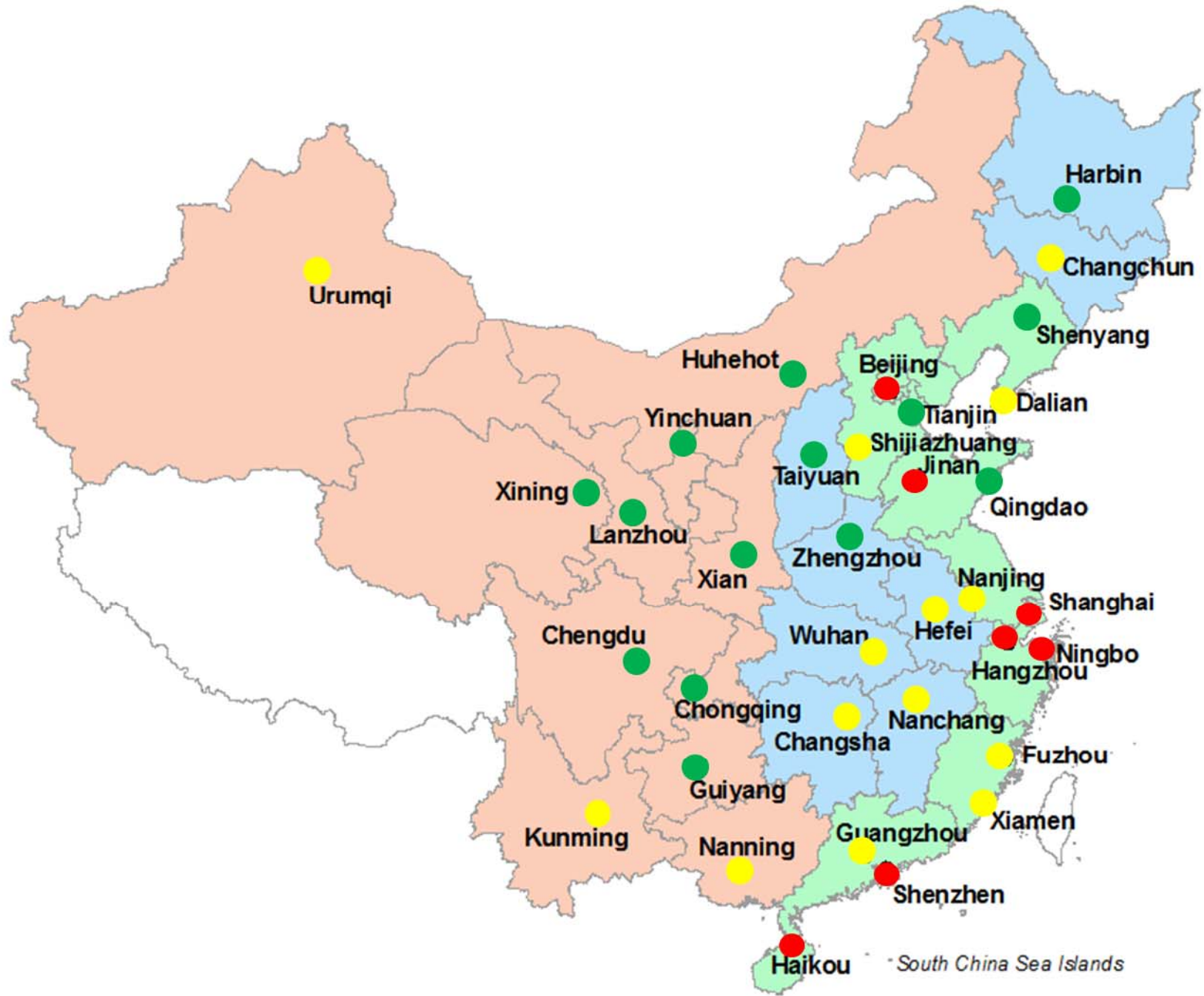


Longer-Run Supply/Demand Trends 2001-2014

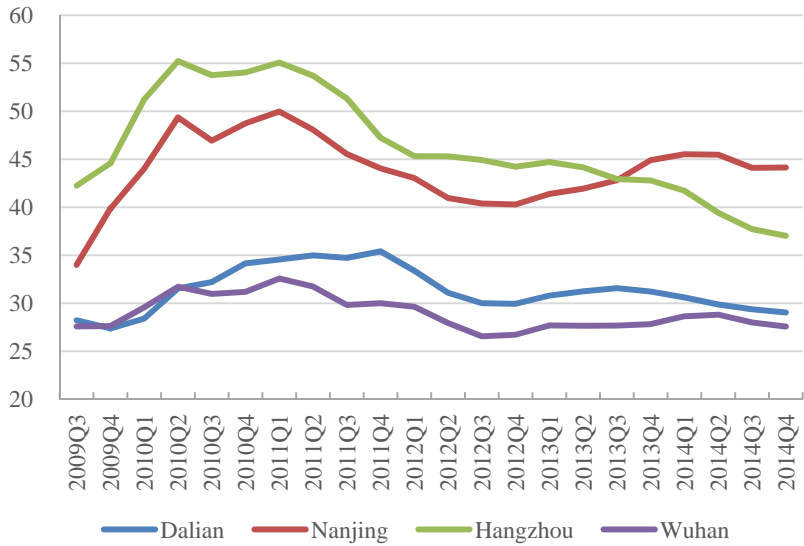
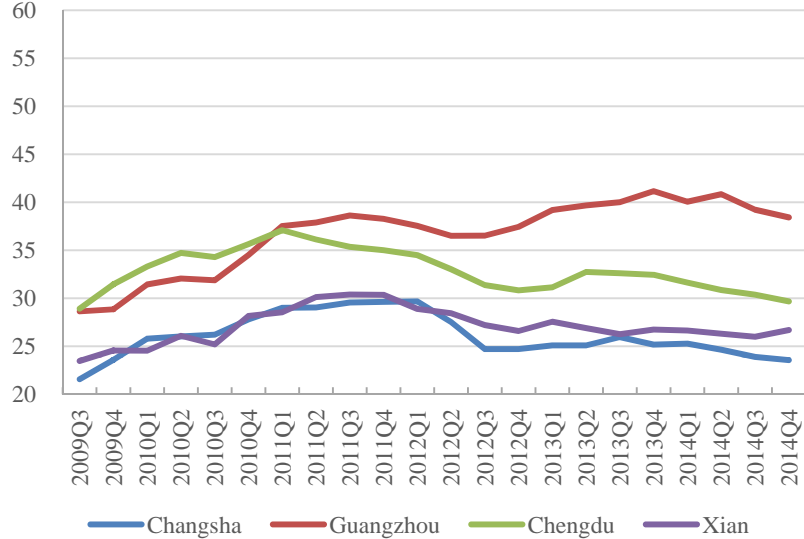
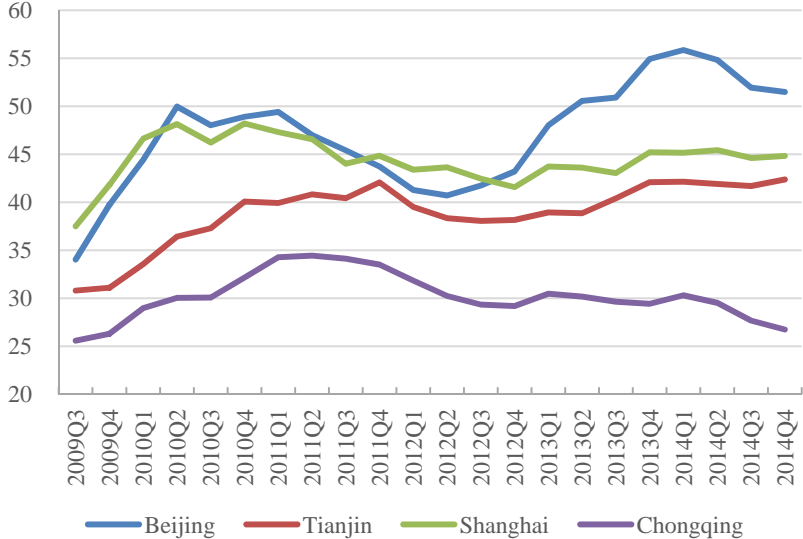
- Supply at least 10% below our projected demand
 - Beijing (87%), Hangzhou (79%), Haikou (79%), Jinan (86%), Ningbo (85%), Shanghai (70%), Shenzhen (73%)
- Supply at least 30% above our projected demand
 - Chengdu (230%), Chongqing (193%), Guiyang (162%), Harbin (160%), Hohhot (178%), Lanzhou (143%), Qingdao (144%), Shenyang (154%), Taiyuan (148%), Tianjin (132%), Xian (130%), Xining (32%), Yinchuan (193%), Zhengzhou (191%)
- Other Major Markets Somewhere in Between, with Most Looking Modestly Oversupplied
 - Changchun (111%), Changsha (119%), Dalian (115%), Fuzhou (119%), Guangzhou (93%), Hefei (125%), Kunming (120%), Nanchang (102%), Nanjing (104%), Nanning (115%), Shijiazhuang (113%), Urumqi (94%), Xiamen (115%), Wuhan (129%)



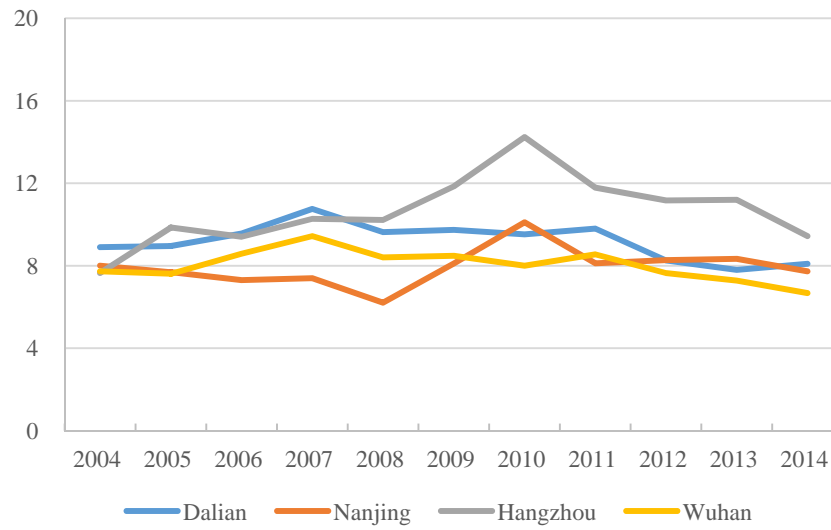
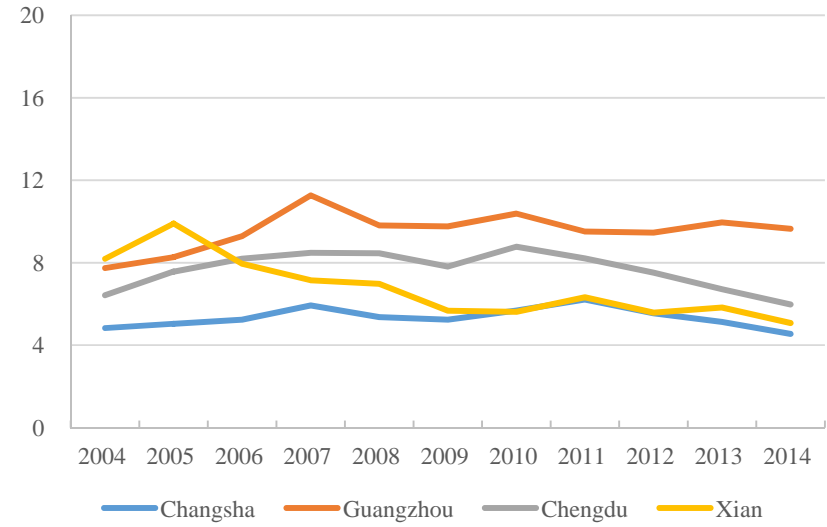
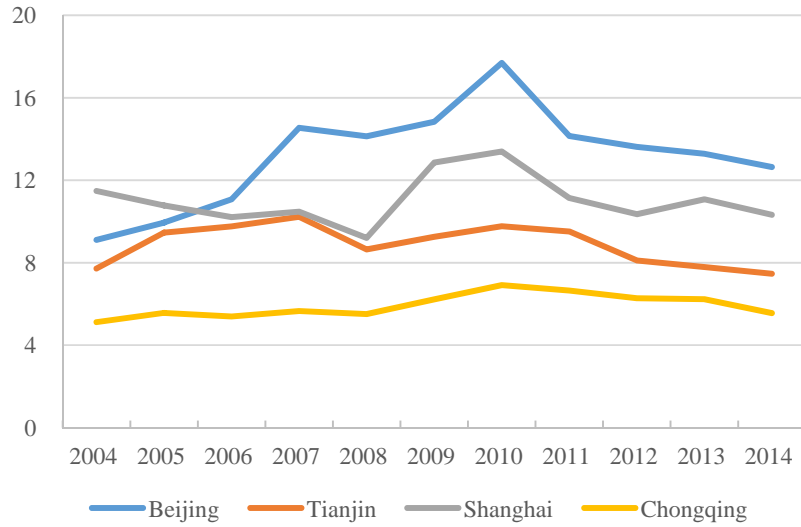




Quarterly Price-to-Rent Ratios



Annual Price-to-Income Ratios



Conclusions

- Need more effort on measurement of prices in particular
 - China needs a S&P/Case-Shiller price index
 - Ability to gauge land market is a real advantage
- Keep context in mind when examining prices and quantities
 - Chinese prices started from very low base
 - China is a high growth and high volatility market
- Do not see much value in trying to put the label ‘bubble’ on these markets
 - Very short time series, with imperfect data
 - Still, no doubt Chinese housing markets are very risky
 - ‘Priced to perfection’ in the following sense: even in fundamentally strong Tier 1 cities, relatively small changes in expectations, absent countervailing rent increases, will lead to large negative changes in price levels per Poterba’s user cost framework

Conclusions

- Beyond 'rich' pricing, supply appears to have outpaced demand over the last decade, not just the last year, in various markets
 - Primarily, but not exclusively, in the interior of the country
 - Any negative demand shock will occur in an environment of weak fundamentals in these places—this combination always leads to large price declines in any durable goods market, and housing is a durable good