



Real estate prices in Beijing, 1644 to 1840[☆]

Daniel Raff^{a, 1}, Susan Wachter^{b, 2}, Se Yan^{c,*}

^a Wharton School of Management, University of Pennsylvania, 3620 Locust Walk, Philadelphia, PA 19104, USA

^b Wharton School of Management, University of Pennsylvania, 3733 Spruce Street, Philadelphia, PA 19104, USA

^c Guanghua School of Management, Peking University, Mailing Address: Rm 402, Guanghua School of Management, Peking University, Beijing 100871, China

Received 12 April 2012

Abstract

This paper provides the first estimates of housing price movements for Beijing in late pre-modern China. We hand-collect from archival sources transaction prices and other house attribute information from the 498 surviving house sale contracts for Beijing during the first two centuries of the Qing Dynasty (1644–1840), a long period without major wars, political turmoil, or significant institutional change in the Chinese capital. We use hedonic methods to construct a real estate price index for Beijing for the period. The regression analysis explains a major proportion of the variance of housing prices. We find that house prices grew steadily for the first half-century of the Qing Dynasty and declined afterwards in both nominal and real terms through the late eighteenth century. Nominal prices grew starting in the late eighteenth century and declined from the early nineteenth century through 1840. But these price changes occurred with contemporaneous price changes in basic measures of the cost of living: there was little change in real terms to the end of our period. © 2013 Elsevier Inc. All rights reserved.

Keywords: Beijing; Qing Dynasty; House prices; Hedonic regressions
JEL classification: N95; R31

[☆] We are grateful to Zhang Xiaolin and Deng Yibin for their generous support in our gaining access to these contracts. Roy Mill and other participants in the 2012 Chicago ASSA meetings gave helpful comments. We owe thanks to the University of Pennsylvania Global Engagement Fund and the Wharton Global Initiatives research fund for grants for this project. Raff thanks Wharton's Mack Center and Dean's Office and Wachter thanks the Research Sponsors Program at Wharton's Zell-Lurie Real Estate Center for personal research support. Yan acknowledges support from the NSF (SES-0922531), the NSSFC (09CJL009), and the China MOE Liberal Arts and Social Sciences Youth Foundation (09YJC790012). The usual disclaimer applies.

* Corresponding author. Tel.: +86 1062757764; fax: +86 1062753178.
E-mail addresses: raff@wharton.upenn.edu (D. Raff), wachter@wharton.upenn.edu (S. Wachter), seyan@gsm.pku.edu.cn (S. Yan).

¹ Tel.: +1 215 898 3804.

² Tel.: +1 215 898 6355.

0014-4983/\$ - see front matter © 2013 Elsevier Inc. All rights reserved.

<http://dx.doi.org/10.1016/j.eeh.2012.10.003>

1. Introduction

In this paper, we assemble a new and unique dataset for house prices in Beijing between 1644 (the start of the Qing Dynasty) and 1840, a period without war, major political turmoil, or significant institutional change in the Chinese capital.³ We use the dataset to document long-run house price trends in Beijing. We combine this long-run house

³ Readers may wonder how the terminal date of 1840 was selected. The Sino–British Opium Wars broke out in 1840. In the end Qing government was forced to open up to foreign forces. This brought about drastic changes in political institutions and economic conditions. Therefore we have decided to concentrate on house sales through 1840 only.

price index with historical information on population, economic conditions, government policies, and natural, political and economic shocks, and discuss what the driving forces behind the long-run historical price changes might be. We combine the historical house price series for Beijing with a series for consumer goods prices and wages to estimate the change in real house prices. More speculatively, we relate these to recent and present price levels for housing in Beijing.

The contracts underlying our dataset have not been previously used by economists. In fact, scholarly research on the historical housing market in China has been quite limited.⁴ Lack of data hampers solid inquiry into this unknown area of research. Our work on historical housing prices in Beijing is the first quantitative study of China's historical housing market.

This paper makes several contributions. First, the dataset we have created covers a long span of the Qing Dynasty period, from its rise through its heyday and into its decline. The data are uniquely valuable: the house transaction contracts from which our dataset is drawn are the only reliable primary source for information on the development of the housing market in Qing Dynasty China.⁵ Besides price, we also collect characteristics for properties that are the subject of transaction, and we identify the location of these properties. We are then able to link the locations to centers of political and commercial activity in historical Beijing.

Second, by estimating a hedonic price model, we construct a time series of housing prices for this period of nearly 200 years, as well as other economic series. Moreover, we construct other economic series, including measures of the price of rice and of consumer prices more broadly over the period, which we use to deflate the real estate price index to create a series in real rather than merely nominal terms. The hedonic model provides insights on the value to be attributed to particular characteristics of housing in this historical period, including the important factor of location. The housing price index provides insights on the time path of housing prices over time. The latter can be compared to

other historical trends, for example those of prices more generally.

Third, in recent years, much work has been published that aims to compare real income and standard of living in China with those in other major economies in a longer historical horizon. Concerted efforts in collecting more historical price and wage data from Chinese historical archives have produced academic achievements.⁶ Such studies provide valuable insights for us to understand the long-run causes, processes and consequences of the divergence between Europe and Asia. Housing-related expenses are an important item of household consumption, and changes in house prices and rental costs have large impacts on people's real income and standard of living. Due to data limitations, however, there is no study so far that incorporates housing expenses into the consumption basket. Our estimation of the long-run house price index and house values provides a benchmark that scholars can use to estimate expenditures on housing for Beijing residents in the Qing Dynasty, thus allowing more reliable estimates of costs of living and standard of living in that period in China.

Many scholars have, of course, studied housing prices, indeed for many places, using hedonic methods. Such studies covering short intervals of time are common.⁷ Long-period studies, in contrast, are very few in number.⁸

One which comes close is the study of *Case and Shiller (1987)*. The Case/Shiller index, in widespread use in the U.S., is based on repeat sales of the same property and starts in the late 1980s.⁹ *Shiller (2005)* combines these data with other long term data series, including construction costs, to create series beginning in 1890. Linking these indexes, Shiller finds that until the recent run-up of prices in the U.S. starting in the mid-1990s, housing prices adjusted for inflation were basically constant.

The only other study that we are aware of that covers a long historical period, and the only study that covers a

⁴ Several historians in China have done research on the city of Beijing, for example *Han (1996)*, *Zhang (2000)* and *Liu (2008a, 2008b)*. But these studies basically use history and sociology approaches and do not focus on the housing market and real estate prices. *Zhang (2000)* is the only research that utilizes some of these contracts to describe the city and the society in Beijing. But that study is also quite descriptive. The landmark English language works of *Rawski (1998)* and *Naquin (2000)* are also not focused on the matters which concern us here.

⁵ These data are for Beijing, the capital throughout the period. There are no data available for other Chinese cities in this historical period.

⁶ See, for example, *Pomeranz (2000)*, *Ma (2008)*, and *Allen et al. (2011)*. Also, the Global Price and Income History Project (<http://gpih.ucdavis.edu/>) provides a collection of the most up-to-date scholarly achievements on international comparison of historical price and income history.

⁷ For example, *Nicholas and Scherbina (2010)* collected house sale data from the *Real Estate Record and Builders' Guide* and construct a hedonic price index for the Manhattan area between 1920 and 1939.

⁸ For example, *Moorhouse and Smith (1994)* constructed a hedonic house price index to study the effects of the row house on house prices in many US cities in the 19th century. *Margo (1996)* collected house rental data from newspaper ads in New York City and constructed a hedonic house rental price index for New York City between 1830 and 1860.

⁹ See <http://www.standardandpoors.com/indices/sp-case-shiller-home-price-indices/en/us/?indexId=spusa-cashpidff-p-us>.

متن کامل مقاله

دریافت فوری ←

ISIArticles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات