

Article

Rule by Law, Law-Based Governance, and Housing Prices: The Case of China

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Abstract: Although some attempts have been made to elucidate the relationship between law-based governance and housing prices, the existing literature still provides limited knowledge about the mediating mechanisms through which law-based governance correlates with housing prices. This study specifically investigates how the association between the rule of law and housing prices is sensitive to public satisfaction, and how the connection is heterogeneous across geographic and socioeconomic groups. Using panel data of Chinese cities over the period 2014–2017, our econometric estimation results indicate that law-based governance may enlarge financial loans and foreign investment and then raise housing prices, which is robust to different specifications. Moreover, the relationship is heterogeneous across city groups and sensitive to the degree of satisfaction with the rule of law quality. Additionally, we demonstrate that the mediating role of financial loans is larger than that of foreign investment. In the stage of emerging economies' pursuit of the rule of law, our findings have useful implications for local governments to control rapidly rising housing prices by reducing loans and foreign investment.

Keywords: rule by law; law-based governance; housing price; sensitivity; heterogeneity; mediating mechanism



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1. Introduction

It is widely agreed that the quality of governance matters for economic prosperity [1–3], but the linkage between specific aspects of governance quality and economic prosperity has not been sufficiently studied in the literature yet. In the World Bank's first series of publications that stress "governance matters for development", the notion of "good governance" was built on four components that include the competence of the public sector to manage the economy and deliver public services, accountability of public officials, transparency of policy frameworks, and a legal framework for development [4–6]. However, the literature has not reached a consensus on what type of legal framework performs better in facilitating development [7,8]. In the World Bank's publication, only the legal framework satisfying the principle of "the rule of law" can create a sufficient stable setting for efficient use of resources and productive investment [5]. Nevertheless, "the rule of law is notoriously difficult to define and measure" [9]. Meanwhile, the connection between the rule of law and economic prosperity is still under extensive debate [10,11]. In several emerging economies, a low or even, sometimes, a negative association between the rule of law and economic development is observed [12,13]. In addition, as far as the authors are aware, to date, all the existing analyses on the law–development nexus have been conducted at a national level and none have been based on subnational or city-level data.

Over the last few decades, the Chinese ruling party (Chinese Communist Party, CCP) has made constant efforts towards "governing the country according to the law" [14]. Just

recently, the fourth plenary session of the 19th CCP Central Committee that ended in Oct. 2019 again reiterated the importance of “ensuring law-based governance in all areas, building a country of socialist rule of law” [15]. However, several scholars have stressed that the Chinese state’s attempts to use laws as a means to exercise the rule do not fit the universal notion of the “rule of law” but instead are better interpreted as pursuing a governance model of “rule by law” [16–19]. In this paper, we do not plan to get involved in the debate on whether and how the Chinese institutionalization efforts in its legal framework are different from the universal notion of the “rule of law”. We hereby use the term “law-based governance” to refer to the law aspect of governance, as this term is the standard word used in the English versions of the Chinese government’s official documents for promoting legal development [20] and also the translated copy of President Xi Jinping’s related works [21]. While “law-based governance” appears to mainly emphasize the functional use of law in the spirit of “governing according to law” [22] or “rule-based regulation” and “law-based control” [17], it is, however, open to wider interpretations. For example, we presume that the notion of law-based governance is compatible with the World Bank’s Worldwide Governance Indicators project team’s conception of the rule of law: “perceptions of the extent to which agents have confidence in and abide by the rules of the society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence” [23].

This paper describes the relationship between average city-level housing prices and law-based governance, or the law aspect of governance, in Chinese cities. In this analysis, housing prices are chosen as a proxy to reflect both contemporary prosperity and people’s confidence in future economic prosperity [24]. According to classical urban economics literature, people choose where to dwell by “voting with their feet” and their competition for desirable urban amenities including the quality of urban governance is well capitalized in housing prices [25–27]. Exploring the cross-city variations of the linkage between housing prices and law-based governance in China can provide rich information on how Chinese people value the law aspect of governance quality in their location choices. Such work will then contribute to bridging the knowledge gap regarding the heterogeneous associations between legal development and economic prosperity within a given political regime.

Our research work is premised on three unique advantages. First, we have the chance to utilize city-level indicators of law-based governance, which are rarely available in the empirical literature. The rule of law or quality of law-based governance is generally assessed on the country level but its city-level variations within a country are rarely explored in the literature. Second, compared to advanced economies, the Chinese housing market is still nascent and sensitive to the quality of the law aspect of governance. Launched formally in 1998 on the basis of the abolishment of a welfare housing system that served the needs of the central planning economy, the Chinese housing market has just roughly two decades of development history and many institution buildings are still evolving [24,28]. It will thus be of great interest to discover how people’s confidence in the future prospects of local property is associated with the law aspect of governance in a nascent housing market. Third, China is a vast country with significant regional variations in both housing market development and the quality of governance, particularly its law aspect. These significant regional variations make it possible to detect the detailed heterogeneity of the relationship between housing market booms and law-based governance.

By investigating the correlations between law-based governance and housing prices, especially the mediating mechanisms, sensitivity, and heterogeneity of the relationship, this paper contributes to the literature in four aspects. First, for the first time, we demonstrate that a higher degree of law-based governance in one city is on average associated with higher average city-level housing prices. This relationship remains consistent in different subsamples, various model settings, and is robust when applying instrument variable (IV) estimators to alleviate potential endogeneity bias. In particular, we construct a weighted distance as an instrument for law-based governance using distances between different levels of government. Second, we find evidence that the effect of law-based governance

can work through expanding the supply of banking loans and stimulating more foreign investment and, further, we find that the mediating role of loans is greater than that of foreign investment. Third, we find that the correlation of law-based governance and housing prices is stronger when the public has higher satisfaction with the quality of the law aspect of governance. This suggests that the extent that the law aspect of governance can be felt and accredited by the public is the key for law-based governance to affect people's confidence in asset prices. Fourth, the size of the association between law-based governance and housing prices is heterogeneous across different city groups. In particular, we find the association is greater in the first- and second-tier cities, and presume this is because housing is expensive in these cities and thus buyers and investors are more sensitive to the security of property rights and guarantee of contract outcomes.

The remainder of this study is structured as follows. Section 2 explores the mechanisms through which law-based governance correlates with housing prices, reviews the relevant literature, discusses potential research gaps, and proposes research hypotheses of this paper; Section 3 displays the methodology and constructs the empirical model used in this study; Section 4 introduces the variables and data; Section 5 presents the estimation results and shows robustness checks and other extensions. Finally, we conclude this study with policy suggestions in Section 6.

2. Analytic Framework and Hypothesis Development

In this section, we first discuss the literature relevant to the general relationship between law-based governance and housing prices, China's pursuit of law-based governance, and Chinese housing market development. Based on the insights and theoretic arguments from the existing literature, we derive the main hypotheses to be tested in the study.

2.1. Governance, Law, and Economic Development

Since the World Bank's 1992 publication of the booklet "Governance and Development", the roles of governance in development and economic prosperity have been extensively studied worldwide [2,3,29–31]. For example, governance is said to affect economic growth via many direct and indirect channels, but the central role is its function in the formation of an institutional environment that is friendly to investment and capital accumulation [32]. Alternatively, good governance can be considered as the existence of an appropriate set of institutions that reward efforts to develop economic performance [33].

From the beginning of the World Bank's call for "good governance", the rule of law, alongside accountability and transparency, is one of the central elements of governance institutions [6]. The World Bank itself deemed that "some elements of rule of law are needed to create a sufficient stable environment for economic actors to make investments and transact business" [5], and further proposed that "good governance is epitomized . . . by all behaving under the rule of law" [6]. The build-up of "good governance" has always been closely blended with the concept of the "rule of law" as they are believed to mutually reinforce each other [3]. Although with a wide or sometimes, arguably, an all-embracing meaning, the "rule of law" is perhaps one of the most universally appealing political concepts. For example, the principle of the "rule of law" has been interpreted as "man is governed by law, and not by whims of men" [5]. Meanwhile, the rule of law is also said to mean that "the state should exercise power under the authority of law; government officials should be subject to law just as private citizens" [5]. As the United Nations put it, "the rule of law is a principle of governance in which all persons, institutions and entities, public and private, including the State itself, are accountable to laws" [34]. In empirical work, the rule of law is one of the six ingredients in the World Bank's Worldwide Governance Indicators [35], and the World Development Report 2017 also stresses the importance of the linkage between governance and law [36].

However, the connection between the degree of the rule of law and economic prosperity involves much controversy [10]. Taking the case of China as an example, China's performance of the rule of law is generally assessed as inferior in Western literature [37,38],

and consistently ranks low in most international rankings, e.g., China was ranked 100 in 2014 and 87 of 177 countries and regions in 2018 on the Corruption Perceptions Index (CPI). Nonetheless, despite the persistence of low international assessment of its degree of rule of law, China has not only achieved a stunning miracle of economic growth since 1978 but also continued to maintain the economic boom after four decades of rapid development. This phenomenon has been called the China paradox, between the low degree of rule of law and high economic growth, in the literature [39]. A similar association is also observed in several other new emerging economies [12,40]. It has been suggested that in the case of China, the disinterested government, i.e., a government that not captured by any interest group, is impartial towards different sections of the population and prioritizes the long-term welfare of the whole society [41], acting as a substitute for the rule of law to constrain the pitfalls of “entrenched special interest groups” and underpinning China’s economic success [42]. However, the exact relationship between Chinese-style rule of law and economic performance has not received much empirical investigation.

2.2. China’s Pursuit of Law-Based Governance

Since 1978, accompanying the shift towards a market-oriented economic system, the Chinese party-state has pledged to move forward with “ruling the country by law”, the professionalization of the judiciary, and the expansion of legal practitioners, and many new laws have been passed [18,38,43]. Table 1 shows the major events in China’s pursuit of law-based governance during the period 1997–2010.

Table 1. Major events in China’s pursuit of law-based governance.

| Date | Event | Source |
|------------|--|---|
| Sept. 1997 | President Jiang Zemin called for “ruling the country according to the law” and deemed “constructing the socialist state in accordance with the law” as one of basic policy strategies of the Chinese Communist Party (CCP) at the opening speech of the 15th National Congress of the CCP. | [44] |
| Mar. 1999 | The slogan “ruling the country according to the law” was added to the Constitution when the 9th National People’s Congress of the People’s Republic of China passed the constitutional amendment. | http://www.npc.gov.cn/zgrdw/npc/dbdhhy/content_9508.htm (accessed on 26 April 2021) |
| Nov. 1999 | The State Council issued the <i>Decision of the State Council on Comprehensively Promoting Administration According to Law</i> . | SC[1999]23 |
| Mar. 2004 | The State Council promulgated the <i>Implementation Outline for Comprehensively Promoting Administration by Law</i> , which established the objective of constructing a law-based government. | SC[2004]10 |
| Aug. 2008 | The State Council issued the <i>Decision on Strengthening the Administration of Municipal and County Governments by Law</i> , and made special arrangements for the construction of law-based government at the municipal and county levels. | SC[2008]17 |
| Nov. 2010 | The State Council promulgated the <i>Opinions on Strengthening the Construction of a Government Ruled by Law</i> , which made a comprehensive arrangement and raised overall demand for the construction of a law-based government. | SC[2010]33 |

In the Xi Jinping era, in 2012, the 18th Congress of the Chinese Communist Party and two important decisions adopted subsequently in the 3rd and 4th Plenum in 2013 and 2014, respectively, opened new phases of China’s instrumentalist legal-based governance [38]. Particularly, the fourth plenary session of the 18th CCP Central Committee that convened in Oct. 2014 was exclusively devoted to a theme “concerning comprehensively advancing the law-based governance of China”. The Plenum called for making “coordinated efforts to promote law-based governance, law-based exercise of state power, and law-based administration of government”, and emphasized that “justice is administered impartially,

the law is observed by everyone”, in order to “ensure that everyone is equal before the law” [45]. The Plenum also pointed out that “to exercise state power based on law, the Party not only has to govern the country in accordance with the Constitution and laws, but also has to ensure that its self-governance is in line with its own rules and regulations”, and therefore “to ensure judicial impartiality and improve judicial credibility” [45]. It was clearly stated at this Plenum that “the law is an instrument of great value in the governance of a country and good laws are a prerequisite for good governance” [45].

The pronouncements on socialist law-based governance at the Congresses and Plenums, together with the legal dimensions of Xi Jinping’s anticorruption campaign, signify China’s localization of international standard of rule of law discourses including substantial modifications to fit Chinese circumstances and the party-state’s ambitions [22,46]. According to the *Implementation Outline for Constructing Law-based Government* (2015–2020), jointly issued by the Central Committee of the Communist Party of China (CPC) and the State Council on Dec. 2015, the law-based governance structure that ensures all the government’s work complies with the law should be basically established by 2020. The fulfillment of this aim, however, requires not only major institutional developments but also sufficient legal service capability. The data from China’s Ministry of Justice suggest that, by the end of 2019, in China there were 473,000 practicing lawyers, including 393,300 full-time lawyers, 43,300 public lawyers, and 10,900 corporate lawyers; Beijing, Guangdong, Jiangsu, and Shandong are the four provincial-level region units that host more than 30,000 lawyers [47]. However, in terms of registered lawyers per capita, the gap between China and the advanced economies is still very large.

2.3. Evolution and Differentiation of Chinese Housing Market

The Chinese housing market plays an important role in the economy and society [24]. In July 1998, the State Council formally abolished the in-kind distribution of welfare housing in urban areas. Between 1999 and 2016, the Chinese government considered the commodity housing sector as an engine to promote investment, expand domestic demand, and boost economic growth [48]. During this period, the scale of real estate investment was over-inflated and prices rose fast. According to the data released by the National Bureau of Statistics, the phase of fastest-rising housing prices in China was 2004–2009, with an average annual growth rate of 12.4% and a more pronounced phenomenon of investment and speculation. In November 2008, China proposed an economic stimulus package totaling about four trillion RMB in response to the financial crisis, and housing prices grew by as much as 23.2% in 2009. Since 2010, in order to stabilize housing prices and alleviate the unaffordability crisis that has threatened social stability, the Chinese government has intensively introduced a series of regulatory policies to dampen the speculative demand. During the study period of this paper, 2014–2017, data from the National Bureau of Statistics show that the average annual growth rate of housing prices in China fell to 6.1%, which is lower than the average growth rate of 8% over the past 20 years. Based on this, the regulatory policies during this period were relatively loose, mainly in the form of interest rate and tax rate reductions. Since 2017, the Chinese government emphasized the residential nature of housing and insisted on the position that houses were for living in, not for speculation, and attempted to promote a steady development of the housing market [49]. This seems to be a return to the original intent of the market-oriented housing reform in 1998.

During both the socialist planned economy era and the early stage of the economic reform era, housing in Chinese cities was considered as part of the welfare provision package, while population mobility was constrained, and thus the spatial differentiation of housing was insignificant [50]. However, during the market-oriented development process of the housing sector, the widening regional economic inequality amplified by the massive urban–rural migration, as well as increasing city-to-city mobility, has led housing market conditions and institutional settings to rapidly exhibit substantial spatial variations across cities [24]. In particular, housing prices have shown increasingly significant spatial

differences across different tiers of cities [51]. Figure 1 shows the spatial distribution of mean housing prices between 2014 and 2017 in 100 large and medium-sized sample cities.

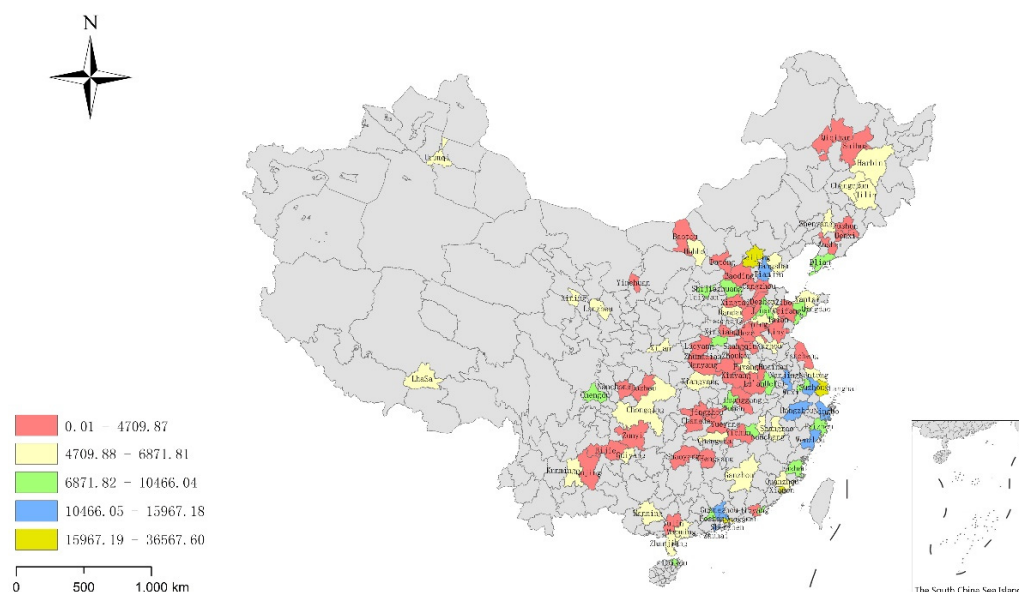


Figure 1. Housing price distribution.

It can be seen that the cities falling into the two highest housing price categories are mainly concentrated in the eastern region of China, such as Shenzhen, Beijing, Xiamen, Shanghai, Hangzhou, Zhuhai, Guangzhou, etc. Meanwhile, the cities with lower housing prices are primarily located in the central and western regions of China. Therefore, regional differences in housing prices are evident in China's real estate market.

2.4. Mechanism Discussions and Hypothesis Development

A “fair” legal framework plays an important role in the housing market. Both housing investments made by developers and housing purchases made by households are capital intensive, and thus very sensitive to legal non-transparency or legal uncertainty. A business climate of predictability that features economic agents' certainty in exercising their rights and high confidence in the restraint of arbitrary behavior of government officials can help greatly to attract stable capital investment and promote a sustainable boom in the housing market. The market confidence would be upheld with the availability of an independent and credible judicial system that can give impartial judgement in conflict solving even when the private agents confront the state. Over the last two decades, significant changes have been made to property-related laws as well as legal procedural frameworks of property-related dispute settlement as the state needs to respond to intensifying conflicts in the booming Chinese real estate market [52]. There is also a growing awareness among the execution branches of Chinese local authorities of governing the growing rights-based disputes through law [53], and increasing compliance with the law.

In addition, a high level of law-based governance may promote the housing market through better information disclosure. Evidently, the law aspect of governance strengthens information disclosure by improving the legal system, whereas liquid and credible information disclosure boosts buyers'/investors' confidence and facilitates capital circulation [54]. In fact, China has placed a lot of emphasis on the disclosure of government affairs and government information, which can improve public participation in decision making [55]. For example, the Opinions on Comprehensively Promoting the Government Affairs Disclosure Work, issued by the General Office of the Central Committee of the CPC and the General Office of the State Council in 2016, provide the directions for work on government affairs disclosure. In addition, the Implementation Outline for Constructing Law-based Government (2015–2020) states clearly that information disclosure shall be

come a regular government practice [56]. Moreover, the disclosure of government affairs and government information in the pursuit of a law-based government may alleviate the problem of information asymmetry in the housing market.

In a credit market, information asymmetry between transaction parties and the resulting moral hazard is a major obstacle for financial business. Without reliable legal enforcement to punish cheating and curtail opportunistic behaviors, financial institutions have to invest heavily in investigating the creditability quality of potential borrowers before deciding whether to release loans [57]. The existence of serious information asymmetry and the failure to curb cheating would cause high financing costs, the prevalence of credit constraints, and weaker borrowing capacity. These problems can further accelerate the default of borrowers and in turn reduce the quantities of credit supply. Eventually, reduced availability of financial loans, to both developers and buyers, leads to a more depressed housing market [58]. In contrast, housing markets that with less information asymmetry through a better legal arrangement for information disclosure can attract more credit inflow and have a greater chance to experience and sustain a boom.

Further, nations with highly transparent legal system can attract more foreign investment because a “level playing field” exists between foreign and local investors [59]. In international investment, foreign investors particularly demand good local governance and strong law enforcement in the housing market [60]. Therefore, it is reasonably expected that a nation/region with better law aspect of governance may attract more foreign investment, which may then boost the local housing market through both the direct injection of external demand for properties and indirect but more important shifts from the improvement of the long-term economic outlook.

In sum, a high level of the law aspect of governance can reduce uncertainty and ambiguousness in conflict solving, strengthen information disclosure to mitigate information asymmetry, and attract foreign investors. Further, reducing uncertainty and ambiguity in conflict resolution can guarantee housing-related rights, such as access to public services in China, which boosts the desire to buy houses. Additionally, strengthening information disclosure enables homebuyers to obtain more loans, which, combined with foreign investment, ultimately increases demand for home ownership. Finally, these aspects can raise housing demand and then cause housing prices to rise. Based on the analysis, we propose hypothesis 1 as follows:

Hypothesis 1. *Higher level of law-based governance is associated with higher housing prices, holding other things equal.*

Nevertheless, if the public is not cognitively aware of the exact level of law-based governance, then the relationship between law-based governance and housing prices may not be strong. It is quite likely that there may exist a large gap between the public’s awareness of governance quality and researchers’ measurements of such quality. We thus explore the satisfaction level of the public with respect to law-based governance as it is based on the public’s perspective of the quality of law-based governance. Thus, we propose hypothesis 2 as follows:

Hypothesis 2. *The more satisfied the public is with law-based governance, the greater the positive association between law-based governance and housing prices.*

In addition, it is reasonable to expect that the relationship between law-based governance and housing prices could be very heterogeneous across city groups. For example, housing is much more expensive in first- and second-tier cities, which thus implies great asset value and requires a significant amount of financial credit; both investors and buyers in these cities are thus more sensitive to local law-based governance. On the contrary, investors and buyers of housing in small and less developed cities may give less attention to the quality of local law-based governance. Based on these arguments, hypothesis 3 is proposed as follows:

Hypothesis 3. *The correlation between the law-based governance and housing prices is greater in the first- and second-tier cities.*

3. Methodology

We first use a series of pooled cross-sectional regressions to obtain the initial relationship between law-based governance and housing prices. Then, in order to mitigate the estimation bias caused by the endogeneity problem, we construct an instrument for the rule of law. Finally, the causal steps approach is applied to test the mediating effects.

3.1. Model Specification

The econometric model used in this study is expressed as:

$$y_{it} = \alpha + \sum_{j=1}^k \beta_j x_{ijt} + dummy_{region} + dummy_{year} + \varepsilon_{it} \quad (1)$$

where y_{it} is the dependent variable for city i in year t , α is the constant term. x_{ijt} denotes the j th explanatory variable for city i in year t , which may be the key variable of interest or other control variables. β_j denotes the coefficient to be estimated for the j th explanatory variable. $dummy_{region}$ includes the regional submarket dummy variables, $dummy_{year}$ includes the year dummy variables. ε_{it} is the random error term for city i in year t . To increase explanatory power, the regional dummy is introduced into Equation (1) [61]. We control for the general time trend effect by employing a time dummy for each year.

3.2. Instrument for Law-Based Governance

Although we try to include a considerable number of control variables in Equation (1), it is still possible that we omit some relevant variables, especially those unobservable variables that influence housing prices and law-based governance simultaneously. In this case, law-based governance may be correlated with the residual errors, leading to biased estimates of the coefficient. To alleviate any possible endogeneity bias, previous studies generally resorted to constructing various exogenous instrumental variables.

We construct a weighted geographical distance as an instrument for law-based governance using the distance from local government to provincial government and the distance from provincial government to central government. In China, spatial distance deeply affects the degree and efficiency of top-down supervision and monitoring from higher-level government [62]. According to the top-down governmental management system in China, local government is directly supervised by provincial government. Thus, the closer the local government is to the provincial government, the more likely it is that the local construction of law-based government should be regulated. Meanwhile, the supervision of central government over provincial government may have an indirect impact on the local construction of law-based government. However, this impact should be less than the impact of the supervision of provincial government over local government. Therefore, we specify the weight of the distance from local government to provincial government to be 0.8, and the weight of the distance from provincial government to central government to be 0.2. Furthermore, the weighted geographical distance should be uncorrelated with the error term.

3.3. Causal Steps Approach

The methodology classically used to identify the mediating role of an interested variable is testing the regression coefficients step by step (causal steps approach) [63,64]. To conveniently describe the principle of this approach, we use the following simplified models.

$$y = \alpha_1 + \beta_1 x + \varepsilon_1 \quad (2)$$

$$m = \alpha_2 + \beta_2 x + \varepsilon_2 \quad (3)$$

$$y = \alpha_3 + \beta_3x + \beta_4m + \varepsilon_3 \quad (4)$$

where y is the dependent variable, α_i ($i = 1, 2, 3$) is the constant term. x denotes the independent variable. β_j ($j = 1, 2, 3, 4$) denotes the coefficient to be estimated. m is the mediating variable for x to influence y . ε_i ($i = 1, 2, 3$) is the random error term.

To identify the mediating role of m , the significance of β_1 should be tested in the first step. If β_1 is statistically significant, then β_2 and β_4 should be tested. If β_2 and β_4 are both statistically significant, then the mediating role of m is significant. Further, if β_3 is not statistically significant, then the mediating effect is in full force.

4. Variables and Data

In this study, we are interested in how the law aspect of governance of one city is related to housing prices in that city. The housing price indicator uses the average annual price of new residential housing sold in a city, because there are no reliable price data for second-hand housing unit sales for a large number of cities in China. A reliable measure of law-based governance is crucial for the credibility of the estimation results. While there is a large number of efforts measuring the degree of rule of law globally [9,65], few studies have attempted to assess the rule of law or law-based governance at the city level. In this paper, the data of city-level indicators of the quality of the law aspect of governance are collected from the Annual Assessment Report on China's Law-based Government that issued by the School of Law-based Government, China University of Political Science and Law (CUPL) [66]. Since 2014, the report has been successively released five times with annual assessment results for 100 cities, which include four major municipalities that are under the state's direct administration, twenty-seven provincial capitals, twenty-three large cities (according to the category set by the State Council), and forty-six medium-sized cities. These cities have a good representation of the levels of law-based governance in China. The report's assessment index system has nine first-level indicators, including "comprehensively performing government functions by law", "organizational leadership", "system construction", "administrative decision", "administrative law enforcement", "government information disclosure", "supervision and accountability", "solving social conflicts and administrative disputes", and "public satisfaction", of local law-based administration. Due to its professionalism and independence, the assessment report has earned a good reputation in Chinese society and is widely cited in the media as well as Chinese academic research [66].

As "comprehensively performing government functions by law" has been placed at the most prominent position in the Implementation Outline for Constructing Law-based Government (2015–2020), we use the scores of this indicator in the assessment report to measure the quality of law-based governance. This core indicator is specified to capture the situation of administration by law including aspects of institution setting, leadership design, public services, administrative approval, emergency response, etc. [66]. It has a full score of 100 in the annual assessment report, and the score can be expressed as:

$$\text{LAWGOV} = \text{IS} + \text{LD} + \text{PS} + \text{AA} + \text{ER} \quad (5)$$

where LAWGOV is the score of "comprehensively performing government functions by law", IS denotes the score of "institution setting", LD is the score of "leadership design", PS is the score of "public services", AA denotes the score of "administrative approval", and ER is the score of "emergency response". Figure 2 shows the spatial distribution of mean law-based governance quality between 2014 and 2017 across the sample cities. It can be seen that the cities falling into the highest quality category are mainly located in the eastern region of China. To ensure the robustness of our main findings, we also use the sum of the scores of other auxiliary aspects as an alternative indicator of law-based governance. Additionally, the two types of indicators (the core indicator and the mix of auxiliary indicators) enable us to describe the different law-based governance models well.

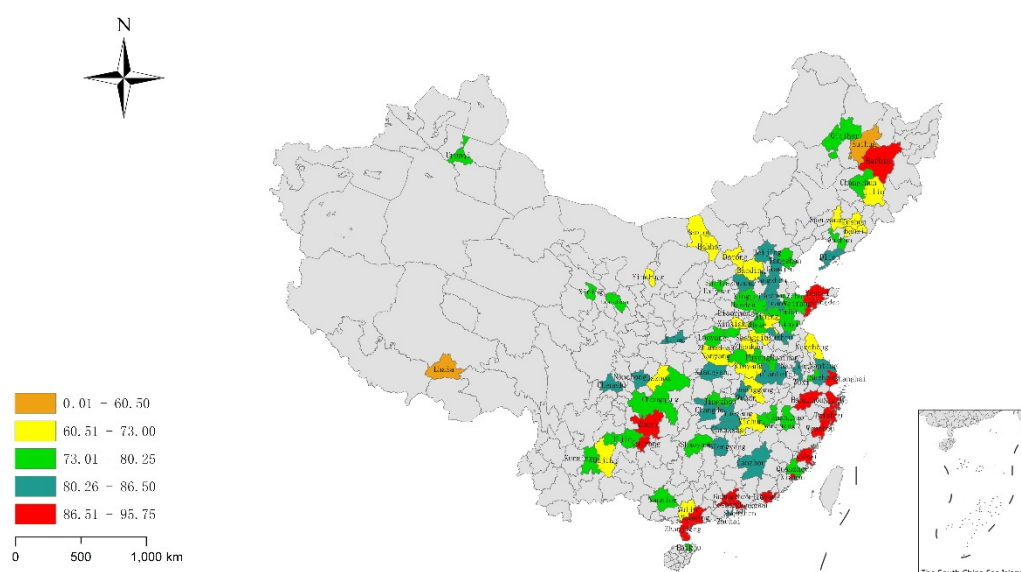


Figure 2. The distribution of law-based governance quality.

In addition to the law aspect of governance, many other factors may also affect city-level housing prices. Guided by findings of the existing literature, we select a large number of control variables that reflect the characteristics of the economic, humanistic, ecological, and geographic environment of cities. Two indicators are utilized to reflect the economic environment, including per capita disposable income of urban households and the ratio of tertiary industry's output value in GDP. For the humanistic environment, we include eight indicators of traffic, educational, medical, and cultural facilities (details in Table 1). Greenness ratio and the emission ratio of industrial soot and dust are used to reflect the ecological environment. Finally, we apply the distance to the coastline to capture the features of the geographic environment.

In addition, as discussed in Section 2.4, law-based governance affects the housing market through the mediating variables of financial loans and foreign investment. We use per capita personal housing purchase loans from banks and non-bank financial institutions to reflect financial loans. The foreign investment indicator is per capita foreign investment. Additionally, per capita loans from housing provident funds are used as an alternative indicator of financial loans to check the robustness of their mediating role between housing prices and law-based governance. In accordance with the suggestions of [67], to improve the estimation results, we incorporate economic regional submarket dummy variables into OLS equations, which can also alleviate the problem of heteroscedasticity [68]. Meanwhile, to control for the time trend effect, we include the time dummy variables for each year.

The data of housing provident fund loans are collected from housing provident fund management centers in each city. The data of the distance to the coastline are calculated by ArcGIS software, which is the shortest straight-line distance from the geometric center of each city to the coastline. The data of city-level housing prices, mediating variables, and control variables are collected from the Bureau of Statistics of each city, the data of the RMB/USD exchange rate come from the People's Bank of China. As the original unit of foreign investment is the dollar, we need to convert dollars to yuan using the exchange rate. The eastern, central, western, and northeastern economic regions are divided by the National Bureau of Statistics of China. The division of first-, second-, third-, fourth-, and fifth-tier cities is based on a research report from Shanghai YiCai Media Co., Ltd. (<https://www.yicai.com> (accessed on 26 April 2021)). It issues the classification of Chinese cities every year based on the commercial store data of mainstream consumer brands, the user behavior data of internet companies, and urban big data. This type of classification changes the traditional classification of cities based on administrative hierarchy. China's cities are classified according to five dimensional indices: business

resource concentration, urban hub, urban activity, lifestyle diversity, and future plasticity, using expert scoring and principal component analysis. The data used in this study cover all the 100 cities in the report over the period 2014–2017 and take their natural logarithm forms in the analysis, except dummy variables. Table 2 describes details of the variables and shows the descriptive statistics.

Table 2. Definitions of variables and descriptive statistics.

| Variable | Definition | Unit | Mean | SD | Min | Max | Source |
|----------|--|-------------------------------|----------|-----------|----------|----------|---|
| HROUPRI | City-level average price of urban residential housing | yuan/m ² | 6814.77 | 5256.203 | 1497.69 | 45818.83 | City's Bureau of Statistics |
| LAWGOV | Score of comprehensively performing government functions by law | — | 79.23 | 10.165 | 37 | 98 | China University of Political Science and Law |
| MULVAR | Sum of the other scores of constructing law-based government including organizational leadership, system construction, administrative decision, administrative enforcement of law, government information disclosure, supervision and accountability, and solving social conflicts and administrative disputes | — | 369.34 | 59.994 | 160.5 | 506.3 | China University of Political Science and Law |
| LOAN | Per capita personal housing purchase loan from banks and non-bank financial institutions | yuan/person | 2115.04 | 3018.626 | 16.97 | 27075.82 | City's Bureau of Statistics |
| HOPRFU | Per capita loans from housing provident funds | yuan/person | 782.83 | 708.421 | 63.67 | 4812.74 | City's Bureau of Statistics |
| FOINV | Per capita foreign investment | yuan/person | 1489.57 | 1821.362 | 0.5 | 12684.79 | City's Bureau of Statistics |
| SATISFY | Indicator of the degree of satisfaction with law aspect of governance quality | — | 125.54 | 14.918 | 80.29 | 184.45 | China University of Political Science and Law |
| INCOME | Per capita disposable income of urban households | yuan/person | 30830.32 | 8482.858 | 15680.74 | 59328.92 | City's Bureau of Statistics |
| INDSTR | Ratio of tertiary industry's output value in GDP | % | 46.54 | 9.936 | 25.42 | 80.56 | City's Bureau of Statistics |
| POPDEN | Population density | persons/km ² | 621.54 | 405.751 | 17.86 | 2648.11 | City's Bureau of Statistics |
| SCHDEN | School density | schools/100 km ² | 12.13 | 12.432 | 0.34 | 112.65 | City's Bureau of Statistics |
| HOSDEN | Hospital density | hospitals/100 km ² | 2.42 | 2.073 | 0.09 | 18.79 | City's Bureau of Statistics |
| TROBUS | Number of buses per 10,000 people | buses/10 ⁴ people | 4.51 | 4.146 | 0.22 | 29.29 | City's Bureau of Statistics |
| ROAD | Per capita area of paved roads | m ² /person | 5.54 | 4.649 | 0.46 | 37.55 | City's Bureau of Statistics |
| BOOK | Books in public library per capita | volume/person | 0.75 | 0.707 | 0.06 | 4.47 | City's Bureau of Statistics |
| GRERAT | Green ratio | % | 2.42 | 6.366 | 0.02 | 49.01 | City's Bureau of Statistics |
| LANSUP | Per capita area of residential construction land launched by the government | m ² /person | 13784.20 | 43740.631 | 43.58 | 456260.2 | City's Bureau of Statistics |
| UNEMRA | Unemployment rate | % | 2.95 | 0.771 | 0.9 | 4.3 | City's Bureau of Statistics |
| DISCOA | Shortest distance to coastline | km | 416.78 | 514.594 | 1.13 | 3435.23 | ArcGIS |

Table 2. Cont.

| Variable | Definition | Unit | Mean | SD | Min | Max | Source |
|-----------|---|------|--------|---------|------|---------|---|
| DUSOOT | Emission ratio of industrial soot and dust | % | 2.56 | 5.663 | 0.02 | 81.3 | City's Bureau of Statistics |
| WEIDIS | Weighted distance using the distance from local government to provincial government and the distance from provincial government to central government | km | 321.53 | 175.561 | 6.58 | 1344.38 | ArcGIS |
| EAST | Regional dummy variable: 1, if the city is in Eastern China; 0, otherwise | — | 0.46 | 0.499 | 0 | 1 | National Bureau of Statistics |
| CENTRE | Regional dummy variable: 1, if the city is in Central China; 0, otherwise | — | 0.26 | 0.439 | 0 | 1 | National Bureau of Statistics |
| WEST | Regional dummy variable: 1, if the city is in Western China; 0, otherwise | — | 0.18 | 0.385 | 0 | 1 | National Bureau of Statistics |
| NORTHEAST | Regional dummy variable: 1, if the city is in Northeastern China; 0, otherwise | — | 0.10 | 0.300 | 0 | 1 | National Bureau of Statistics |
| FIRST | Dummy variable: 1, if the city is among first-tier cities in China; 0, otherwise | — | 0.04 | 0.196 | 0 | 1 | https://www.yicai.com (accessed on 26 April 2021) |
| SECOND | Dummy variable: 1, if the city is among second-tier cities in China; 0, otherwise | — | 0.38 | 0.486 | 0 | 1 | https://www.yicai.com (accessed on 26 April 2021) |
| THIRD | Dummy variable: 1, if the city is among third-tier cities in China; 0, otherwise | — | 0.32 | 0.467 | 0 | 1 | https://www.yicai.com (accessed on 26 April 2021) |
| FOURTH | Dummy variable: 1, if the city is among fourth-tier cities in China; 0, otherwise | — | 0.22 | 0.415 | 0 | 1 | https://www.yicai.com (accessed on 26 April 2021) |
| FIFTH | Dummy variable: 1, if the city is among fifth-tier cities in China; 0, otherwise | — | 0.04 | 0.196 | 0 | 1 | https://www.yicai.com (accessed on 26 April 2021) |

Note: — indicates that corresponding variable is unitless.

5. Research Findings and Discussions

The economy is sensitive to housing [69], and fluctuations in housing markets have long been recognized as leading indicators of an economy [70]. This study aims to investigate the correlation between the law aspect of governance and the economy in China using housing prices as a proxy for economic prosperity [24]. On the other hand, the data released by the National Bureau of Statistics show that the average annual growth rate of

housing prices was 8% over the past 20 years in China, and the growth rate of GDP was 9%. The difference between them is not significant. Furthermore, in the sample period, 2014–2017, the average annual growth rate of housing prices was 6% and the growth rate of GDP was 7%. There is still no big difference between the two growth rates. To test whether the hypotheses developed above can be supported, we use Equation (1) to explore the association between law-based governance and housing prices. We first use the method of ordinary least squares (OLS) to perform baseline estimation. Then, in order to avoid possible biased estimates, we test the endogeneity of law-based governance. Thereafter, we discuss the sensitivity, heterogeneity, and robustness of the relationship between the rule of law and housing prices.

5.1. Baseline Estimates

The baseline estimates are shown in Table 3. To compare the results of models with/without dummies, column (1) in Table 3 shows the results of the model without regional dummies and yearly dummies, column (2) includes yearly dummies, and column (3) includes both regional dummies and yearly dummies.

Table 3. Baseline estimates.

| | (1) HOU PRI | (2) HOU PRI | (3) HOU PRI |
|------------------|---------------------------|---------------------------|---------------------------|
| LAWGOV | 0.32580 *** (0.10999) | 0.32191 *** (0.11182) | 0.29648 *** (0.11207) |
| INCOME | 0.45266 *** (0.07352) | 0.41980 *** (0.07665) | 0.39392 *** (0.07714) |
| INDSTR | 0.42731 *** (0.09722) | 0.40893 *** (0.09966) | 0.40263 *** (0.09969) |
| POP DEN | 0.00324 (0.04142) | 0.00496 (0.04156) | −0.02143 (0.04285) |
| SCH DEN | 0.06304 * (0.03370) | 0.05885 * (0.03384) | 0.04798 (0.03480) |
| HOS DEN | 0.01862 ** (0.00843) | 0.02257 ** (0.00873) | 0.02676 *** (0.00916) |
| TROBUS | 0.05808 ** (0.02280) | 0.06098 *** (0.02284) | 0.06752 *** (0.02298) |
| ROAD | 0.01089 *** (0.00387) | 0.01128 *** (0.00387) | 0.00997 ** (0.00387) |
| BOOK | 0.08992 *** (0.02340) | 0.09513 *** (0.02373) | 0.11087 *** (0.02445) |
| GRERAT | 0.01228 (0.02469) | 0.00862 (0.02474) | 0.01487 (0.02472) |
| LANSUP | −0.02756 *** (0.01057) | −0.03125 *** (0.01072) | −0.03425 *** (0.01079) |
| UNEMRA | −0.11651 ** (0.04763) | −0.12029 ** (0.04782) | −0.11885 ** (0.04954) |
| DISCOA | −0.06975 *** (0.00996) | −0.07104 *** (0.01002) | −0.08056 *** (0.01227) |
| DUSOOT | −0.02622 ** (0.01320) | −0.02671 ** (0.01354) | −0.01469 (0.01435) |
| Constant | 1.40760 (0.88928) | 1.86315 * (0.95404) | 2.44558 ** (0.97881) |
| Regional Dummies | No | No | Yes |
| Yearly Dummies | No | Yes | Yes |
| N | 400 | 400 | 400 |
| Root MSE | 0.23522 | 0.23484 | 0.23254 |
| R ² | 0.80705 | 0.80918 | 0.81437 |

Note: *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively. Standard errors are in parentheses.

The coefficient of LAWGOV in each column is statistically significantly positive, suggesting the law aspect of governance is positively associated with housing prices. Additionally, the signs of the coefficients of the control variables are basically as expected. Neither population density (POPDEN) nor green ratio (GRERAT) have significant effects on housing prices. However, the effects of other control variables on housing prices are all significant. Per capita disposable income of urban households (INCOME) and the ratio of tertiary industry's output value in GDP (INDSTR) have greater effects on housing prices than other control variables do. Not surprisingly, the effects of the per capita area of residential construction land launched by the government (LANSUP), unemployment rate (UNEMRA), the shortest distance to the coastline (DISCOA), and the emission ratio of industrial soot and dust (DUSOOT) on housing prices are negative. Compared to columns (1) and (2), column (3) shows that the root MSE becomes lower and the R2 rises to a higher level. This indicates that when economic region submarket dummy variables are introduced into the OLS model, its explanatory power increases [61]. We use the model with both regional and yearly dummies to undertake further analysis.

5.2. Endogeneity Test

If the rule of law has potential endogeneity issues, it can lead to biased estimates. To decrease the inaccuracy of the coefficients to be estimated, we first perform a weak instrument test and Durbin–Wu–Hausman test [71,72], and the results are shown in Table 4.

Table 4. Endogeneity test.

| | (4) OLS HOUPRI | (5) 2SLS HOUPRI |
|-----------------------------------|--------------------------|-------------------------|
| LAWGOV | 0.47390 *** (0.10693) | 1.04783 ** (0.44295) |
| Control variables | Yes | Yes |
| Constant | 2.12933 ** (0.93171) | −1.66614 (2.08097) |
| Regional dummies | Yes | Yes |
| Yearly dummies | Yes | Yes |
| F value of weak instrument test | | 29.474 *** |
| F value of Durbin–Wu–Hausman test | | 2.25092 |
| N | 400 | 400 |
| Root MSE | 0.22317 | 0.24711 |
| R ² | 0.82903 | 0.77876 |

Note: *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively. Standard errors are in parentheses. The control variables are the same as in Table 3.

In Table 4, the F value of the weak instrument test for columns (4) using OLS and (5) using 2SLS is significantly greater than 10, indicating that the weighted geographical distance is not a weak instrument [73]. Additionally, the F value of the Durbin–Wu–Hausman test for these two columns is not statistically significant, implying that the law aspect of governance may be exogenous. Therefore, the endogeneity problem of the rule of law may not be paid special attention in doing so. This may imply that we could estimate our model using OLS.

5.3. Mediating Mechanism Test

Mediating mechanism analysis can provide a more detailed understanding to figure out how an interested variable affects the dependent variable [74]. We check the mediating roles of financial loans and foreign investment through testing the regression coefficients step by step [63,64]. The relevant test results are shown in Tables 5 and 6.

Table 5. Correlation between law-based governance and financial loans, and correlation between law-based governance and foreign investment.

| | (6) LOAN | (7) FOINV |
|-------------------|---------------------------|----------------------------|
| LAWGOV | 0.81186 *** (0.20525) | 0.84155 * (0.48367) |
| Control variables | Yes | Yes |
| Constant | −7.95179 *** (1.84999) | −21.17797 *** (4.10219) |
| Regional dummies | Yes | Yes |
| Yearly dummies | Yes | Yes |
| N | 400 | 400 |
| Root MSE | 0.44171 | 1.01283 |
| R ² | 0.82475 | 0.52420 |

Note: *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively. Standard errors are in parentheses. The control variables are the same as in Table 3.

Table 6. Correlation between financial loans and housing prices, and correlation between foreign investment and housing prices.

| | (8) HOUPRI | (9) HOUPRI |
|-------------------|--------------------------|--------------------------|
| LOAN | 0.20088 *** (0.02314) | |
| FOINV | | 0.04515 *** (0.01059) |
| LAWGOV | 0.21916 ** (0.09464) | 0.24164 ** (0.09862) |
| Control variables | Yes | Yes |
| Constant | 3.44314 *** (0.82104) | 3.55998 *** (0.94096) |
| Regional dummies | Yes | Yes |
| Yearly dummies | Yes | Yes |
| N | 400 | 400 |
| Root MSE | 0.19413 | 0.20930 |
| R ² | 0.87096 | 0.85001 |

Note: *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively. Standard errors are in parentheses. The control variables are the same as in Table 3.

5.3.1. Mediating Role of Financial Loans

First, in Table 3, we show that the law aspect of governance is positively related to housing prices. Second, it is easy to see that the rule of law is significantly positively correlated with financial loans in column (6) of Table 5. Third, we can see in column (8) of Table 6 that both the law aspect of governance and financial loans are significantly positively related to housing prices. Therefore, the mediating role of financial loans is statistically significant according to the step-by-step approach, which implies that improving the quality of the rule of law may enlarge loans and then raise housing prices. Hypothesis 1 is supported.

5.3.2. Mediating Role of Foreign Investment

Similarly, column (7) in Table 5 shows that the law aspect of governance is significantly positively connected with foreign investment. In addition, both the rule of law and foreign investment are significantly positively associated with housing prices in column (9) of Table 6. Based on the results in Table 3 and the step-by-step approach, the positive mediating role of foreign investment is statistically significant, indicating that raising the quality of the law aspect of governance may attract foreign investment and then boost housing prices. Hypothesis 1 is also confirmed.

5.3.3. Robustness Test of Mediating Role of Loans

In order to ensure the credibility of the positive mediating role of loans, we replace financial loans from banks and non-bank financial institutions with loans from housing provident funds to check the robustness. The test results are in Table 7.

Table 7. Robustness test of the mediating role of financial loans.

| | (10) HOPRFU | (11) HOUNPRI |
|-------------------|-------------------------|--------------------------|
| LAWGOV | 0.42804 ** (0.20647) | 0.22448 ** (0.10940) |
| HOPRFU | | 0.06432 ** (0.02787) |
| Control variables | Yes | Yes |
| Constant | −2.51929 (1.64530) | 2.79558 *** (1.02577) |
| Regional dummies | Yes | Yes |
| Yearly dummies | Yes | Yes |
| N | 400 | 400 |
| Root MSE | 0.43228 | 0.23308 |
| R ² | 0.75362 | 0.81398 |

Note: *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively. Standard errors are in parentheses. The control variables are the same as in Table 3.

It is shown in column (10) of Table 7 that the rule of law is significantly positively associated with loans from housing provident funds. Additionally, both housing provident fund loans and the law aspect of governance significantly and positively link with housing prices in column (11) of Table 7. In accordance with the results in Table 3 and the step-by-step approach, the positive mediating role of housing provident fund loans is statistically significant. Therefore, the mediating role of loans in the relationship between the rule of law and housing prices is very robust.

5.4. Sensitivity Analysis

To elaborate on how the association between the rule of law and housing prices changes with the degree of public satisfaction with the quality of the law aspect of governance, we consult with respondents on a series of different questions, such as “How well does the local government listen to the opinions and suggestions of the people when making major decisions?”, “What about the integrity of the local government?”, “How effective is the local government in fighting corruption?”, “How about the propaganda of law-based governance?”, etc. The final score for this indicator is equal to the sum of the scores for responses to each question. We add the interaction term of the rule of law and the degree of satisfaction, LAWGOV × SATISFY, in Equation (1). The estimation result is displayed in Table 8.

Column (12) in Table 8 shows that the coefficient of the interaction term is significantly positive. We also drop the variable LAWGOV from the regressions to eliminate the possible collinearity between it and the interaction term, finding that the estimate of the interaction term is still significantly positive in column (13) of Table 8. This finding implies that, if the public has high satisfaction with the quality of the law aspect of governance, then the correlation between the rule of law and housing prices would be greater. Therefore, hypothesis 2 is supported.

Table 8. Sensitivity and heterogeneity of the relationship between law-based governance and housing prices.

| | (12) HOUPRI | (13) HOUPRI | (14) HOUPRI |
|-------------------|--------------------------|--------------------------|--------------------------|
| LAWGOV | 0.06259 (0.15232) | | 0.17454 * (0.09765) |
| LAWGOV×SATISFY | 0.05207 ** (0.02365) | 0.05928 *** (0.01586) | |
| Control variables | Yes | Yes | Yes |
| LAWGOV×FIRST | | | 0.16205 *** (0.02434) |
| LAWGOV×SECOND | | | 0.06075 *** (0.01611) |
| LAWGOV×THIRD | | | −0.00281 (0.01467) |
| LAWGOV×FOURTH | | | 0.00491 (0.01486) |
| Constant | 2.68313 *** (0.88353) | 2.80369 *** (0.83248) | 5.11483 *** (0.81852) |
| Regional dummies | Yes | Yes | No |
| Yearly dummies | Yes | Yes | Yes |
| N | 400 | 400 | 400 |
| Root MSE | 0.21171 | 0.21148 | 0.19214 |
| R ² | 0.84653 | 0.84647 | 0.87360 |

Note: *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively. Standard errors are in parentheses. The control variables are the same as in Table 3.

5.5. Heterogeneity Analysis

In order to elucidate the heterogeneity of the relationship between law-based governance and housing prices across city groups, we add the interaction terms, LAWGOV × FIRST, LAWGOV × SECOND, LAWGOV × THIRD, and LAWGOV × FOURTH, in Equation (1). We drop the regional dummy variables to eliminate the possible collinearity between them and the interaction terms. The estimation result is displayed in column (14) of Table 8, suggesting that the association between the rule of law and housing prices in the first- and second-tier cities is significantly greater than that in other cities. Thus, hypothesis 3 is confirmed.

5.6. Robustness Test of the Effect of Rule of Law Quality on Housing Prices

In China, “comprehensively performing government functions by law” is the core of the construction of law-based government. In addition to this critical variable, some other auxiliary variables are also available to measure the quality of the rule of law in the Annual Assessment Report on China’s Law-based Government. Each of the auxiliary variables reflects a special aspect of law-based governance. To ensure the trustworthiness of the correlation between the law aspect of governance and housing prices, we construct another variable, MULVAR, to replace LAWGOV. Each indicator score of other auxiliary aspects of law-based governance can be obtained like LAWGOV. Then, we combine these indicators into one indicator to alternatively describe law-based governance, of which the score can be expressed as:

$$\text{MULVAR} = \text{OL} + \text{SC} + \text{AD} + \text{AE} + \text{GI} + \text{SA} + \text{CD} \quad (6)$$

where MULVAR denotes the score of the alternative indicator, OL is the score of “organizational leadership”, SC denotes the score of “system construction”, AD is the score of “administrative decision”, AE denotes the score of “administrative law enforcement”, GI is the score of “government information disclosure”, SA is the score of “supervision and accountability”, and CD denotes the score of “solving social conflicts and administrative disputes”. The robustness test results are displayed in Table 9.

Table 9. Robustness test of the relationship between law-based governance and housing prices.

| | (15) HOUNPRI | (16) HOUNPRI |
|-------------------|-------------------------|--------------------------|
| MULVAR | 0.19954 ** (0.09845) | 0.14891 * (0.08836) |
| Control variables | Yes | Yes |
| FIRST×MULVAR | | 0.12198 *** (0.01796) |
| SECOND×MULVAR | | 0.04945 *** (0.01147) |
| THIRD×MULVAR | | −0.00032 (0.01066) |
| FOURTH×MULVAR | | 0.00504 (0.01079) |
| Constant | 2.21459 ** (0.88288) | 5.64530 *** (0.80838) |
| Regional dummies | Yes | No |
| Yearly dummies | Yes | Yes |
| N | 400 | 400 |
| Root MSE | 0.21486 | 0.19189 |
| R ² | 0.84151 | 0.87393 |

Note: *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively. Standard errors are in parentheses. The control variables are the same as in Table 3.

Obviously, the coefficient of the alternative indicator of the rule of law is still significantly positive in column (15) of Table 9, and the characteristic of the heterogeneity in column (16) is consistent with that in column (14) of Table 8. Therefore, the relationship between the law aspect of governance and housing prices is robust.

In addition, we construct a 0–1 spatial weight matrix (**W**) to calculate Moran's *I* of housing prices in our sample cities, Moran's *I* is 0.24314 and the *p*-value is less than 2.2e-16, suggesting that there is significant spatial autocorrelation in housing prices. Therefore, we next test whether the relationship between law-based governance and housing prices can still be robust in spatial models after dropping regional dummies. The estimates of the spatial lag model and spatial error model are shown in Table 10.

Table 10. Maximum likelihood (ML) estimation of spatial models.

| | (17) Spatial Lag Model HOUNPRI | (18) Spatial Error Model HOUNPRI |
|-------------------------|--------------------------------------|--|
| LAWGOV | 0.29187 *** (0.10906) | 0.23523 ** (0.10491) |
| W ×HOUNPRI | 0.19766 *** (0.04429) | |
| W ×ERROR | | 0.39975 *** (0.06565) |
| Control variables | Yes | Yes |
| Constant | 1.08814 (1.04273) | 2.52113 *** (0.97105) |
| Yearly dummies | Yes | Yes |
| N | 388 | 388 |
| Wald chi ² | 1890.01 | 1639.34 |
| Prob > chi ² | 0 | 0 |
| R ² | 0.8183 | 0.8297 |

Note: *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively. Standard errors are in parentheses. The control variables are the same as in Table 3. To avoid the emergence of cities without neighbors, Urumqi, Kashgar, and Lhasa are dropped.

It can be seen from Table 10 that the estimated coefficients of law-based governance are both significantly positive in the spatial lag model and spatial error model. This implies that our main findings are still supported after taking into consideration spatial autocorrelation.

6. Conclusions

With the increasing role of law in governance [75], there is a growing emphasis on law-based governance worldwide, and China expects to build itself into a socialist country with Chinese characteristics under the rule of law. In conventional terms, the rule of law necessarily has a positive correlation with the economic growth and the overall economic prosperity of any country [76]. For example, law-based environmental governance boosts employment [77]. Therefore, the pursuit of law-based governance is closely related to economic development, including the real estate market [53]. Although some studies have noted that a certain law can have a significant impact on housing prices [54], and the revised “Japanese Tenant Protection Law” affects housing rent [78], there is still limited knowledge about how the rule of law and housing prices are related across cities in a given country. In the current context of China’s efforts to raise the quality of the law aspect of governance, a lack of awareness of such liaising mechanisms may not contribute maximally to economic development and may lead to less efficient regulation of possible rapid increases in housing prices. Our study bridges this cognitive gap by analyzing the ways in which the law aspect of governance is associated with housing prices, and the focus is the roles played by the factors of public satisfaction and socioeconomic groups.

This study finds that improving the quality of the law aspect of governance can enlarge loans, attract foreign investment, and then significantly raise housing prices. However, the relationship between the rule of law and housing prices is sensitive to public satisfaction. Additionally, considering the geographic and socioeconomic factors, the present paper shows that the correlation between the law aspect of governance and housing prices is greater in the first- and second-tier cities. These findings provide new insights into the pursuit of the rule of law with high quality in contemporary China.

In fact, China has made various efforts to raise the quality of the law aspect of governance in order to establish a socialist state under the rule of law. This pursuit in practice necessarily contributes to economic prosperity. Nevertheless, housing prices may increase additionally in the pursuit, which is an unwanted and concerning outcome for the government. Inspired by our findings, local governments could promulgate measures to reduce financial loans and foreign investment to curb the possible rapid rise in housing prices when improving the law aspect of governance quality, especially for emerging economies in the world.

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