

Effect of Municipal Toll and Connections Cost on Housing Prices in Different Areas of the Isfahan City

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DOI Link: <http://dx.doi.org/10.6007/IJARBSS/v4-i9/1129>

Published Date: 05 September 2014

Abstract

The growing urban population in developing countries with restrictions on the provision of housing becomes one of the major problems of municipalities to provide services required and urban infrastructure such branches are different. In this study the municipal toll and connections cost of various organs such as water, electricity, gas, telephone over the period 1390-1380 based on ordinary least squares regression has been evaluated using a cost function models and are examined inequalities in housing prices in different areas of the city. According to the results of the study variables, building materials prices, fire insurance and labor prices in the housing sector have positive and significant impact on housing prices in different areas of the city. In other words, the rise in prices of building materials in housing prices, wages, all prices in variable tariffs and duties to permit residential construction will increase the cost of housing facilities granted by banks in different regions that all of which leads to a decrease in supply and an increase in housing prices in these areas. On the other hand the increase in population has led to an increase in housing demand in the region and thus the price of housing will increases. Also, inflation reflects an increase in the cost of housing in the city and as a result housing prices will rise. Other tariffs affecting housing prices have significant positive effect on fire insurance and housing prices in different areas of the city.

Keywords: Municipal toll, Connections cost, Housing prices, Isfahan.

1. Introduction

Municipalities and local organizations must be within the rules of local revenues to administer the affairs of the civil service. However, since the formation of the mentioned organizations affected by government policies and ministries have been associated (Hamunpad, 1381: 172-171). Provide better service and greater prosperity for the citizens of a society of aspirations

and goals following the realization that the local authorities are responsible for the increasing urban population and thus has arrived raising expectations of citizens in urban management officials, the new challenge. Providing more quality services to meet the needs of citizens having sufficient income sources will be easy, because the price of housing and access to it is a critical component of sustainable urban development. Therefore, the safety effects of urban bodies such as municipalities and management of water, electricity, gas, contacts and organizations such as insurance, fire and engineering systems in determining prices in different parts of the city is very important.

Increasing population growth and migration from villages to cities and towns as well as the development of big cities will happen. On the one hand, the urban population is increasing and the other caused the crisis and higher density in cities is building. Demographic changes including migration increase in fertility and decline in mortality had an impact on local organizations serving. Sales of density as an important part of the safety authority in terms of physical complications and financial terms of the scope and structure of the city are evident in the large cities and sale Picks tariffs branches as local organizations in different areas varies and can be assessed. Based on this article, first describe the theoretical background related to the subject matter covered and is provided. In the following article stated model to estimate and analyze the results of a dedicated and in the end, the conclusions and recommendations related article is dedicated.

2. Research literature

2.1 The Municipal Toll and Land Taxes

One of the most common and oldest forms of property tax is the tax on the land. Land tax in the history of the evolution of the economy, the transformation from an agrarian economy to an industrial economy and trade, much has changed. Due to the transformation of the economy from agriculture to industry and commerce, economic and industrial activities are concentrated in cities and urban areas has led to a rapid increase in the price of satisfied and income get a lot of industrial cities has urban land owners. In addition, most industrial facilities and public buildings, railways, and the like that can be done from public funds, land prices will increase.

The main purpose of land tax collected as part of the value added tax. Complications from the state and municipalities, combat land speculation and encourage people to invest in housing and municipal utilities and more equitable distribution of wealth and income. Taxes and duties on the basis are assessment of the local effects of a system. The vertical and horizontal fairness, legality, social acceptability have been justified and used in law and municipal councils in the world, Iran has been referred by custodians and practitioners of Housing and Urban Development has been emphasized, but Iran is not in good standing (Qaaderi, 1383). Among the complications, side disclosed the property is of utmost importance. These symptoms can be different foundations. Rental rates and land values are good foundation for this. In general, the effects of various land use and urban real estate tax levy is divided into four groups, tax on bare land, urban land value-added tax may cut renovation of complications.

2.2 Factors Affecting Housing Prices

The most important factors that increase the cost of housing is the imbalance between supply and demand. Although the economic crisis and other factors also increase the price level and exacerbate the imbalance between supply and demand are included. Among these factors,

the decline can be worth the money, black markets and noted that especially in critical condition always played a more significant role. Another factor that is effective in increasing the level of housing prices is worth the price of real estate agents.

- The price of land: in the years 1356-1352 due to rising oil prices and consequently increases its revenues from construction activities of the government and the private sector, the demand for land increased. Since the launch of the cities with the pace of demand growth is not in distance of 53 to 56 years of rising prices. Relative economic downturn in 1356, it stopped growing. From 1357 onward, the land price is subject to fluctuations land prices fell in 57 to 60. So that in 58 years the average price of a square meter of land in urban areas, the price was less than half that in 1356. Despite the urban land Act, the decline in prices in 1360 due to increasing demand and limited supply of urban land it was transformed and will rise. Rising land prices and reduced supply of suitable land for housing in urban areas, the production of housing, particularly for low-income groups who are forced to pay more has slowed.

- Construction materials: increasing the building, creating a real lack of false and difficult access to the supply of housing construction materials production slows and its price will increase. This is especially the housing needs of lower income groups where the supply is less and demand more and more severe.

- Construction workers' wages: wages rise housing construction cost results in progressive and therefore limits the growth in this sector will in turn give rise to a shortage of supply (Ahari, 1367, 99).- Technique: Another factor that affects the cost of housing is the techniques used to build housing. Lack of skills and poor construction techniques on the yield and quality of produce and manufactured housing affects. Besides the above factors have pointed to weaknesses in the management and planning Housing, the lack of efficiency in the allocation of resources, capital and energy waste handled and makes no use of existing resources effectively. Capital: Another factor that affects its price fluctuations, the capital. Rate of investment in housing activity, depending on what type of housing will not find it in order to make the housing market and affect the balance between supply and demand. In the absence of investment in construction of affordable housing decline and the demand for this type of housing is high, the price goes up the costs.

2.3 Theoretical Perspectives on the Determinants of Housing Prices

Historical overview of housing studies, as De Pascale and Whiton (1994) mentioned indicates the time of investment in new housing units in the 1960s gradually to review their housing estate and housing prices and the role of financial institutions and markets have focused on it. Since the early 1980s, a new study based on a more explicit definition of the cost of home ownership was by using the theory of life. For example Patrba studies (1984) and Mankiew and Weil (1989) pointed out.

In the 1990s, more attention was paid to the role of financial markets to the housing market. After this period were witnessed a trend to research and review regional housing bubble housing prices. An original approach to the study of housing prices is the study of the factors influencing the behavior of suppliers and demanders. The main objective in relation to housing demand is that demand for housing is to be considered as an asset. In this approach, the objective is to influence the level of economic and demographic variables such as housing, income, interest rates, rents, population and its structure and to assess the consumer's choice or inverse demand function takes into consideration factors affecting housing prices.

In this approach, several studies by Patrba (1984), Whiton (1985), tuples, and Rosen (1988), Mankiw and Weil (1989), D. Pascal, and Whiton (1994), Salo (1994), Kenny (1999), Bvrsh and Sopan (2001), Maine (2002 and 2003), Cameroon, Molbayr and Murphy (2006), Galyn (2006), Goodman and Taybodyu (2008), Bajary (2010) has been approved. D. Pascal, and Whiton (1994) also have studied the demand for rental housing.

2.4 Background Investigations

Asgari and Diamond (1390) using panel data concluded that housing prices in the short term, the stock market price index, the general level of prices in the previous period, land prices, construction costs, fuel prices, private sector investment, total household expenditure is the interest rate on bank loans. In the long term, housing prices in the previous period, number of households, the stock market index, household spending, determines the price of gold and the current price level of housing.

Ashmidny (2005) in his study entitled, separation and local tax revenues, was to evaluate the spatial resolution in urban areas has decentralized financing. Position pays families. The researcher collected data from the central region of Switzerland includes data on families migrating in 1995 select Location random utility maximization model family's framework review. His econometric indicators use various models like Conditional Logit and probit models and makes comparisons. The experimental results of this study show that wealthier households compared to poorer families are more likely to migrate to areas with lower taxes. His postpartum complication is social interactions and the distance from the commercial centers as the main factor income refers to the separation.

Trasberg (2005) in his paper examines the effects of conditions in the Baltic property deals in the past decade. In this study, the source of property tax revenue is an old expression which is collected by local governments. He referred to the appropriate attributes income system that knowledge systems and a good income and stable enough over time to generate income as well as the financial impact on taxpayers will have decisions' Attention to these criteria, property tax as a good source for local governments has risen. He stated that the mechanism of this source of income for local autonomy and fiscal decentralization. He also noted that property tax limits a small tax base and the valuation problem is considered as a limitation of this source of income.

3. Research Model

Model used in this study as equation (1) is:

(1)

$$P = \alpha_0 + \alpha_1 r_w + \alpha_2 M_1 + \alpha_3 Cb + \alpha_4 RB + \alpha_5 P_9 + \alpha_6 DREX + \alpha_7 P_n + \varepsilon$$

Housing prices are : $P : (P_1)P_n$ Indicator variable is the price of building materials.

: $(P_2)r_w$ The price of housing is paid. : $M_1(P_s)$ All prices are variable tariffs and duties to permit residential construction. : $(P_6)cb$ Is the price index for banking facilities. The population of the urban area of the municipality is : $(P_7)RB : P(P_9)$ The inflation rate has varied over the years 1390-1380. : $(P_{10})DREX$ Represents another price variable tariffs affecting housing prices, is like fire insurance.

4- Estimation Model and the Dickey Fuller Test to Check Stationary Variables:

Table 1: Variables stationary

Result	prob	Stat	Variables
I(0)	0.0001	-14.80	Housing price
I(0)	0.0001	-19.04	price of building materials
I(0)	0.0001	-6.95	Wage
I(0)	0.0001	-14.80	prices are variable tariffs
I(0)	0.0001	-39.85	price index for banking facilities
I(0)	0.0001	-10.64	population
I(0)	0.0009	-3.12	Inflation
I(0)	0.0001	-14.80	fire insurance

All variables are stationary in levels. Then the model is estimated: Lymr the F-test, the hypothesis of equal intercept (panel data) In contrast, the opposite hypothesis, the intercept anisotropy (using panel data) is placed. Therefore, we can write:

$$H_0 : \alpha_1 = \alpha_2 = \dots = \alpha$$

H_1 : not above

These models have been tested using Eviews software. F-statistic Lymr number 57/1 showed and with zero probability of approval is a panel data approach. Therefore, according to this test statistic and panel data approach is acceptable. For deciding on the method to fixed effects or random effects, Hausman test is used. Hausman test rejects the hypothesis H_0 is not. The method used to estimate the random effect. (Baltajy, 2005) Hausman test number 31/1 and with probability 25/0, which represents the random effect is confirmed.

Table 2: Estimates of the research model using panel data

prob	T stat	SE	coeficient	variables
0.0000	-188791.0	3.67E-06	-0.693153	C
0.0004	3.639048	0.041080	0.149491	P1
0.0590	1.904389	2.78E-08	5.30E-08	P2
0.0000	1.99E+09	5.03E-10	1.000000	P3
0.0926	1.694210	6.66E-09	1.13E-08	P4
0.0000	397183.8	1.75E-06	0.693147	P5
0.0554	1.932837	7.56E-09	1.46E-08	P6
0.0561	1.927611	8.25E-09	1.59E-08	P7
0.0000	-188791.0	3.67E-06	-0.693153	C
R ² : 0.90				
Adj R ² : 0.90				
DW: 1.83			F: 1.08	
Prob: 0.000				

The results are consistent with the above and as the R-squared statistic indicates Variables, the explanatory power of the model are 90% and the Watson camera statistics indicate that

there is autocorrelation and the course goes on to examine the White test and Godfrey Bryush to verify the absence of variance anisotropy is discussed. The results are presented as follows: According to the results of the study variables, building materials prices, labor prices in the housing sector, all prices are variable tariffs and duties to permit residential construction, the price index of banking facilities, the population index, tariffs and other variables affecting inflation in housing prices have positive and significant impact on fire insurance and housing prices in different areas of the city. In other words, the rise in prices of building materials in housing prices, wages, all prices are variable tariffs and duties to permit residential construction, prices increase the cost of housing facilities granted by banks in different regions that all of which leads to a decrease in supply and an increase in housing prices in these areas. On the other hand the increase in population has led to an increase in housing demand in the region and thus the price of housing increases. Also, inflation also reflects an increase in the cost of housing in the city as a result, housing prices have risen. Other tariffs affecting housing prices, such as insurance and fire have significant positive effect on housing prices in different areas of the city.

4.1 Test Required

A) Examination of the residual variance heteroskedasticity

Table 3: Test results of residuals variance heteroskedasticity

Null hypothesis against	F-statistic	Obs * R-squared statistic	p-value	Test
Ho: equality of variances heteroskedasticity	0.70	0.81	0.66	Accept the null hypothesis (equality of variance)

In this test, the null hypothesis of equality of variance explained is the existence and given that the likelihood statistic and a significance level of 0.05 is more. Consequently, the null hypothesis is accepted, indicating that there is no variance anisotropy.

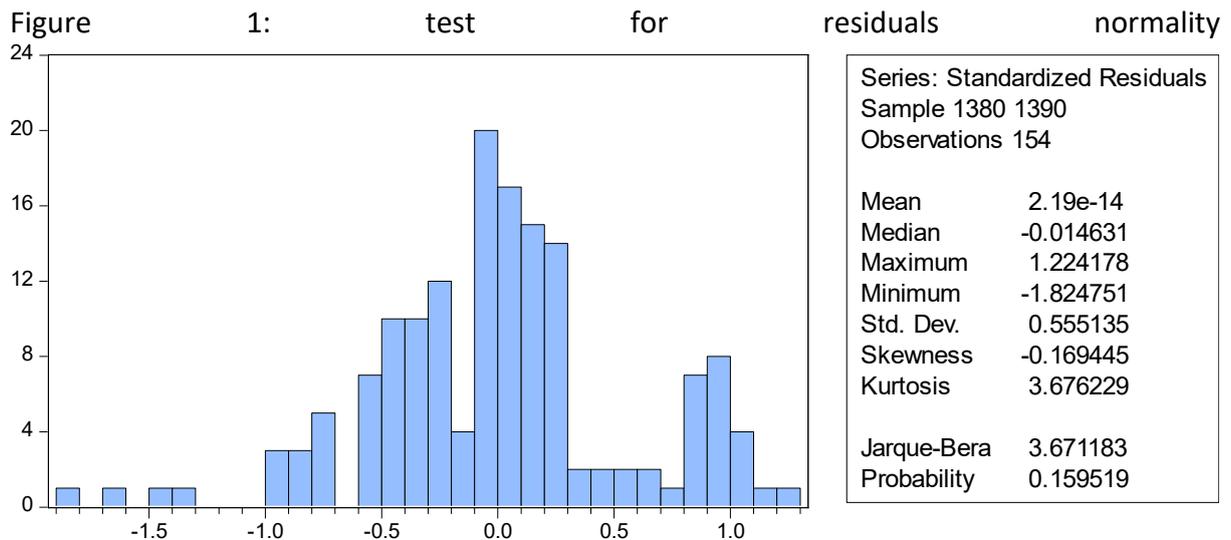
B) Failure to test for residual autocorrelation

Table 4: failure to test for residuals autocorrelation

Null hypothesis against	F-statistic	Obs * R-squared statistic	p-value	Test
Ho: no autocorrelation	0.93	0.18	0.91	Accept the null hypothesis (nocorrelation)
H1: the presence of autocorrelation				

According to the table and see the output of this test is the probability of observing that the probability is greater than 5%. Therefore, the null hypothesis was confirmed and their correlation error values are rejected.

C) Test the normality of residuals:



Given the lack of significance of the test statistic Jakubra remainder of this paper is to show normality.

D) The accumulation of parasite Granger This allows for the parasite Granger cointegration residual estimation, has been StationaryIf the residuals are stationary, research shows that the public is Variables In this study, estimation of remaining Stationary tested and the results are in Table 5:

Table 5: Estimated residuals Stationary by Dickey Fuller test

Variable	Dickey Fuller test	Significant risk
Estimation of residual	4.2312-	0.0001

Results show that the estimated residuals are stationary and engel and Granger Community for research data exists.

5. Conclusions and Recommendations

According to the results of the study variables, building materials prices, labor prices in the housing sector, all tariffs and price ranges to permit side-residential construction price index of banking facilities, population indices, tariffs and other variables affecting inflation in housing prices, have positive and significant impact on fire insurance and housing prices in different areas of the city. In other words, the rise in prices of building materials in housing prices, wages, all prices are variable tariffs and duties to permit residential construction, prices will increase the cost of housing facilities granted by banks in different regions that all of which leads to a decrease in supply and an increase in housing prices in these areas. On the other hand the increase in population has led to an increase in housing demand in the region and thus the price of housing increases.

Inflation also increased the cost of housing in the city as a result, housing prices have risen. Other tariffs affecting housing prices have significant positive effect of fire insurance on housing prices in different areas of the city. Due to the decline in housing prices in different areas of research, policy-based decline in prices of building materials in housing prices, wages, all tariffs and price ranges to permit side-residential construction price index of banking facilities, population indices, tariffs and other variables affecting inflation in housing prices, insurance and fire extinguisher is recommended. In other words, policy-based decline in

prices of building materials, pay the price of housing in all price ranges tariffs and duties to permit residential construction, the price index for banking facilities all contribute to increase supply and reduce prices will be in these areas. Therefore, based on research, policy, management fees and lowering the discount rate facilities and building permit fees the authorities are recommended. On the other hand reduction policies and crowd control also leads to a reduction in housing demand in the region and thus housing prices reduced. Also according to the survey results and it also shows that inflation increases the cost of housing. The city is therefore home prices have risen, the other alternative research-based policies of central banks to control inflation is to reduce housing prices. On the other hand, according to the results of other tariffs affecting housing prices, fire insurance has significant positive effect on housing prices in different areas of the city. Therefore, this study proposes to control housing prices in different areas of Isfahan. Other tariff reductions affecting housing prices, such as fire insurance.

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