Housing as Media of Intergenerational Control:

A Case Study of Taiwan*

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Abstract

Home ownership in urbanized Taiwan exceeds 80 percent of all families, compared with about 60 percent in most western countries and Japan. This extraordinarily high rate can mainly be explained by the fact that 20 to 30 percent of adults are living in houses owned by their parents. The practice of three generation cohabitation provides an adequate financial basis for owning high-priced housing units in Taiwan but has consequently developed a common but complicated tradition of intergenerational transfer of housing assets. The transfer can be viewed as taking two forms. One is a transfer of stock, which means an outright gift of a housing unit, and the other is through sharing housing service flow, which helps the next generation to build up wealth gradually but has different implications in family relationships. The latter case is particularly understudied in the western countries.

It seems that there is still a lack of theory to explain why intergenerational housing transfer is so popular in many societies. I propose to explain it from a viewpoint of intergenerational control. To analyze data from the Panel Study of Family Dynamics, which is co-conducted by the National Science Council and Institute of Economics, Academia Sinica in Taiwan, I use a simultaneous equation to test whether the collective rationale of housing intergenerational control does exist. Through the arrangement of housing intergenerational transfer, parents effect interaction frequency, pattern and material feedbacks between them and their children. The author finds that the children who receive a housing transfer visit their parents more often and give the parents more money. These behaviors match their parents’ wishes.

Key Words: Housing, Wealth, Intergenerational Transfer, Intergenerational Control, Implicit Contract, Taiwan
I. Introduction

The housing ownership rate in Taiwan is extraordinary high. According to the official census data, the percentage is over 82% in 2000. This is an unusually high number compared with the 66% in the U.S.A, 69% in the U.K. and 60% in Japan in 1998 (see Table 1). After analyzing results of some national social surveys in Taiwan, we find the main reason is that there are 20~30% adults living in houses owned by their parents, including co-residence with parents and non co-residence (see Table 2). These houses are both regarded as self-owned in census data. This phenomenon represents two kinds of meaning. First, intergenerational housing transfer is common in Taiwan. Since the share of real estate in total family wealth is approximate 60%, it means intergenerational housing transfer may cause further inequality problems. Second, the number of persons who live in houses owned by the husband’s parents is three times greater than those who live in houses owned by wife’s parents. This fact shows that parents expect to live with a son or sons in-turn after they retire. It also implies that there is some kind of social norm related to supporting elder family members at work.

〈Table 1 should be inserted here 〉

〈Table 2 should be inserted here 〉

In the process of literature review, I found that in the conventional wisdom related on the topic of intergenerational transfer, inheritance is far more emphasized than inter vivos gifts. Academics pay lots of efforts to create theories to explain the rationale of “the last word of King Lear” (Hirshleifer 1977), but the position of inter vivos gifts is still understudied. The following are facts that can’t be ignored: In Taiwan, 30% of families have divided or partially divided family property already (Chu & Yu 2001). The percentage in Japan is almost the same, 26.4% (Tachibanaki 1992). That is to say, inter vivos gifts are important in countries such as Taiwan and Japan. According to the present theory, rational parents had better choose a timing close to their death to transfer property in order to get their children’s material feedback and love. But this is surely not supported by the high percentage of inter vivos property division in Taiwan and Japan. That means we need a new theory to better explain family resource allocation.

In fact, housing does have some special characteristics, such as spatial fixity, high transaction cost, duality of consumption/investment, etc., which sets it apart from other resources among family members. From the viewpoint of intergenerational control, the author tries to discover the subtle relationship between housing intergenerational transfer
and parent-child interactions in family. Through this case study of Taiwan, I found that the adults who received a housing transfer visit their parents more often and support their parents with more money, which we term ‘material feedback’. The results imply that housing is an efficient medium to implement parents’ will, and the common intergenerational transfer phenomenon is a collective rational choice of the Taiwanese family.

II. Literature Review

Relating the role of intergenerational transfer to the accumulation of wealth, economists still can’t reach consensus after debating almost three decades. In order to emphasize the key position of intergenerational transfer, Kotlikoff(1988) claims that life cycle model can explain only approximate 25% of wealth accumulation. On the contrary, Modigliani (1986) insists that his life cycle model has the power to explain almost 80% of wealth accumulation. This debate shows the difficulty of estimating wealth accumulation correctly. On the topic of intergenerational transfer, the academic works related to housing are rare. This is mainly because housing is simply regarded as a kind of capital by economists, and wealth data is hard to collect. Deutch (1997) uses an Austrian dataset which contains 1000 people over 50 years to test housing transfer motives. His conclusion supports the exchange motive, but he doesn’t derive a theoretical model to be the basis of his empirical study. Since the transfer motive in real world is ambiguous between altruistic and exchange motives, it’s difficult to find a method to do empirical study properly. Even for the classical papers in family economics like Cox (1987), not all researchers agree with his main assumptions, like parents dominating the free will of adult children to provide services to them (Chu 1999).

Forrest & Munro (1995) co-edit a book discussing the topic of housing intergenerational transfer from the viewpoint of international comparative study. This volume is contributed by housing researchers and sociologists. In the case of Japan in the middle 1980s, discussed by Hirayama & Hayakawa (1995), the housing price boom caused a high percentage of co-residence and young adults’ reliance on family for economic support. Mayor & Engelhardt (1996) find financial constraints play an important role in explaining the increasing reliance on monetary gifts from parents for down payments, with the receipt of a gift being negatively related to income and wealth and positively related to median house price.

Under the background of social change, Parsons (1984) uses some economic concepts, like
the change of relative price between physical assets and human capital, to interpret the
concept of “intergenerational control”. Through the control of family resources and the
power of dividing inheritance, parents keep their authority over their children. However, in
industrial society, human capital is more emphasized. Human capital investment is a
cumulative process requiring a period of time to get returns. In addition, the school system
gradually replaces family as the major vehicle for acquisition of living skills. Under such
circumstances, the parents’ authority in agricultural society is growing weaker. In the
next section, I will improve upon Parsons’ concepts to build a model to explain the
intergenerational housing transfer in Taiwan.

III An Explanatory Model of Housing Intergenerational Transfer in Taiwan

According to Parson’s intergenerational control model, the change of relative price
between physical assets and human capital is the key to explain institutional change from
agricultural to industrial society.

Since the rate of return of physical assets is higher than that of human capital in
agricultural society, parents invest more in physical assets than in their children’s
education. That’s why the average education level in agricultural society is lower than
that in industrial society. At the same time, parents use the production knowledge and the
power of dividing inheritance to maintain their authority in the family.

When industrialization and urbanization happened, the situation changes. Most of the
young rural-urban migrants become working labor and office clerks in the city, not
farmers like their parents. School replaces family as the major source of knowledge and
job training. Besides, the land in rural areas is no longer critical for survival and is
normally sold or planted with crops which require less labor input. In periods of inflation,
owing to the success of economic development, housing occupation becomes an efficient
way to accumulate wealth. Meanwhile, housing wealth becomes the major part of family
wealth, but not rural farm land. Because the second generation reduces reliance on their
parents, therefore, parents’ authority decreased to a lower level than ever before but is
not eliminated. The reasons are that parents still hold the power of property division, social
networks still work in city life, and the new migrants still recognize the social values
shaped in their early rural life.

The third generation, children of rural-urban migrants, face competition in which human

1 See Tsay (1997).
2 According to the National Wealth Survey in 1991, real estate is approximately 60 % of family wealth.
capital investment is more like a need. This investment needs a certain period of time before getting returns. At the same time, the return is relatively risky because of information asymmetry. On the contrary, housing still is an efficient medium to accumulate family wealth in inflationary periods. Since prices skyrocket, housing becomes a kind of scarce resource. The third generation also finds that real estate is too expensive. Thus, family intervenes by credit rationing of down payment or mortgage, housing stock transfer, and co-residence, etc. Finally, housing transfer has become a popular phenomenon in Taiwan.

Traditionally, parents expect to live with a son or sons in turn when they retire. In a rapidly changing social background, some social norms like co-residence are still popular, but their contents are changing gradually. Since housing has become a scarce resource, parents may influence the interaction pattern between themselves and adult children through housing transfer.

IV Housing As An Efficient Medium of Intergenerational Control

The issue of intergenerational transfer is related to the subtle interaction between parents and adult children. Parents may transfer assets to their children in exchange for elder support in the future. But, intergenerational control is more than intergenerational exchange because of some special properties of housing. Parents may influence or arrange the residential distance between them and adult children. By decomposing the PSFD data, I find that the children who live in a house owned by their parents live closer to their parents than others (see Table3). At the same time, people who live in houses owned by their parents visit their parents more often and support them with more money per month; the latter is a traditional way of supporting their elders. Parents foresee a high probability of getting an ideal family interaction pattern which they wish and support in their old age if they transfer housing to their children. This is what I mean the term of “intergenerational control”. The empirical results will be shown in the next section.

Regarding the interaction pattern between parents and adult children related to resource redistribution in the family, institutional economists use the term “implicit contract” to explain it. The implicit contract, unlike a formal contract between firms, indicates a long-term agreement among the parents and adult children. The mutual understanding among family members reduces the condition of information asymmetry. Multiple transactions\(^3\) are the necessary condition of loyalty, and family interactions are of this type,

\(^3\) The extreme opposite case is the high probability of cheating in the one-shot transaction between vendor
helping to decrease the risk of the implicit contract. According to contract theory, if the economic rent is large enough then the motivation to break the contract will be enforced. Klein, Crawford & Alchian (1978) name the rent as appropriate quasi-rent (see Figure 1). If the appropriate quasi-rent is larger, then the intention to break the contract is stronger. Inter vivos transfer seems to cause high risk vis-à-vis the execution of implicit contract. Are the 30% of parents who divide their property while living irrational? It seems that some properties of housing may reduce the risk of the implicit contract and ensure the ideal interaction pattern and material feedback.

〈Figure 1 should be inserted here〉

The properties of housing as an efficient medium are listed as follows:

A. Spatial Fixity

Since housing does occupy a spatial location, parents may influence or even directly assign the residential location of their adult children.

B. High Transaction Cost

Real estate transaction is related to high transaction cost. Real estate will be difficult for gift receiver to sell when comparing with another financial assets like stock, jewel and cash etc..

C. Duality of Consumption/Investment

Parents may use housing ownership as a way of wealth accumulation. At the same time, they may also satisfy the housing consumption of their children through the transfer.

D. Visibility

Real estate is a kind of physical asset. It can be easily identified because of visibility. The gossip of relatives and neighbors may serve as a monitoring network to enforce the execution of the implicit contract. The gossip exerts social pressure to ensure that adult children provide services to their parents (Chu & Yu 2001).

Since real estate has these qualities, parents should be motivated to shape their ideal interaction type among family members and insure they are supported in their old age through intergenerational housing transfer.

and tourist (Pollack 1985).
V. Empirical Study: Case study of Taiwan

A. Empirical model

The empirical study tries to identify evidence that parents influence the frequency and pattern of interaction with their children through housing transfer. Generally speaking, parents receive two kinds of feedback from children. First, they get psychological satisfaction from the visits of children because of altruistic emotion. Second, material feedback insures parents’ economic security when elderly. Visits cause emotional satisfaction to parents because altruistic behavior. At the same time, children have to pay travel cost and opportunity cost to visit parents. Visits and material feedback may be mutually substitutable, such the adult children may give more financial support to their parents in order to make up for fewer visits. If adult children are not well off, they may visit parents more frequently to make up for lack of financial support. Some studies has proven this empirically (Cox 1987). Based on the above mentioned, I establish a simultaneous equation to estimate visit and material feedback jointly to avoid the explanatory limits of each single equation. The form of simultaneous equation is as follows:

\[ Y_1 = a_0 + a_1 \cdot X + a_2 \cdot S + a_3 \cdot Y + a_4 \cdot H + a_5 \cdot D + \varepsilon_1 \]  
\[ Y_2 = b_0 + b_1 \cdot X + b_2 \cdot S + b_3 \cdot Y + b_4 \cdot H + b_5 \cdot D + \varepsilon_2 \]

where:

- \( Y_1 \): the number of visits by adult children to parents per year
- \( Y_2 \): the net transfer of money by adult children to parents per month
- \( X \): personal or family socio-economic variables
- \( S \): the residential distance between adult children and parents
- \( H \): whether adult children live in the house owned by their parents
- \( D \): whether parents have divided the property already

Since dependent variables are substitutable, the error terms \( \varepsilon_1, \varepsilon_2 \) are probably correlated. If we estimate equations (1) and (2) separately by OLS, then the results will be biased. In order to estimate the two equations jointly and consider the error terms
As probably correlated, I adopt the 3SLS (3 Stage Least Square) method (Pindyck & Rubinfield 1991:296-311).

We may predict that the sign of \( a_3, b_3 \) should be negative because of the relationship of substitution between \( Y_1 \) and \( Y_2 \). In addition, the coefficients mean the degree of substitution in different direction. \( S \) is the dummy variable to represent the residential distance between adult children and parents. The coefficient of \( S_1 \) means living in the same building or within ten minutes on foot in comparison with over an hour by car. The coefficient of \( S_2 \) means living within an hour by car in comparison with over an hour by car. Since living closer may causes more frequent visits and greater financial support of elderly parents by adult children because of intergenerational control, the sign of \( S \) should be positive. \( H \) is the dummy variable to show whether adult children live in the houses which are owned by parents. As mentioned in the previous section, parents may be willing to exercise intergenerational control through housing transfer. Adult children who live in houses which are owned by parents (but not co-resident)\(^4\) may visit their parents more often and support them with more money, so we predict the sign of \( a_4, b_4 \) should be positive. \( D \) is a control variable to show whether parents divide the property already or not. Intervivos transfer may cause more visits and money feedback, so the sign of \( a_5, b_5 \) should be positive.

### B. Data

The data is from the Panel Study of Family Dynamics (PSFD), co-conducted by the National Science Council and Institute of Economics, Academia Sinica in Taiwan. Besides, PSFD is the first panel data of family studies in Taiwan. A sample of 995 people from the questionnaire named RI1999 with adult age of 36-46 and a sample of 1959 from the questionnaire named RI2000 with adult age of 46-65 are merged to be the original dataset. This is a national survey. The percentage of the sample successfully tracked is 50-60%, better than similar surveys in the United States. After combining variables and cleaning up the samples, a sample of 1043 remains to be analyzed.

### C. Main Findings

From the estimation results, the persons who receive an intergenerational housing transfer do visit their parents more often and give them more money per month when compared

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\(^4\) In order to measure the visits, the co-residents are deleted.
with others (see Table 4). At the same time, males take more responsibility for supporting elderly parents because they visit parents more often and give them more money than do females. Males visit their parents 14 times per year than females, and male transfer $19,560 NT ($ 562 US) per month more. Traditionally, real estate is always given to sons in family property division. Through intergenerational housing transfer, parents have lots of chances to succeed in influencing interaction patterns among family members and insuring they are supported when elderly. That is what is meant by “intergenerational control”. In fact, the persons who receive intergenerational housing transfer visit their parents over 41 times in a year. They also provide more than $28,000 NT dollars ($805 US) per month more than the persons who don’t. Visit frequency and material feedback do show the substitution effect, as past researches has demonstrated. If children add a visit to their parents, then they will reduce monetary support by $680NT ($19.5 US) per month. At the same time, if children add support of $1,000 NT($28.7 US) per month, then they will reduce visits by 1.5 times per year. These findings clearly identify the rational choice dimension of intergenerational housing transfer behavior in the Taiwanese Family.

The residential distance variable is significant. The coefficient of variable S1 is three times the coefficient of S2. This result is crucial, implying that parents may influence the residential location of children through housing transfer. Parents may enjoy more visits by their adult children and grandchildren if they proceed with a housing transfer. Housing transfers not only affect the residential distance between parents and children, but also affect the travel cost and spatial activity in urban life.

Compared with the significant condition of two equations, three variables including “sex”, “whether the house is paren tally owned” and “whether parents have divided the property yet” are apparently different. They are significant in the visiting parents equation, but not in the money feedback equation. The result implies two things. First, traditionally agricultural society develops a social norm to pass real estate only to sons in order to give them major responsibility for supporting elderly parents. Intergenerational housing transfer is a transformation of such a norm because housing is the main family wealth instead of farmland. The result supports an exchange motive between parents and sons. Second, compared with other financial media, housing seems to be an efficient medium to execute the implicit contract.

In addition, parents who divide the property already may receive more visits and money. For the older parents, more siblings and higher education level will also cause positive coefficients. The older parents need more health care from their family members. The higher the education level, the more influence family education has on the socialization of
children. The more family education shapes the children’s values, the greater their filial piety will be (Chu & Yu 1997). Finally, a greater number of siblings seems to construct a monitoring network of gossip which helps to ensure that the parents receive more benefits.

VI. Effects on the Allocation Efficiency of Housing Resources

Selfish parents may get more money and service from the exchange with their adult children if they proceed with a housing transfer. But the results of altruistic parents are ambiguous, as adult children may or may not give them more money and service in return. The ambiguous results also imply the usage of housing resource will be less efficient because the characteristics of housing gift, such as location, building type etc., may not suit the expectation of the receiver. From the previous viewpoint, by intergenerational transfer, a society in which parents are more altruistic will cause less housing resource efficiency, and a high vacancy rate is typical evidence of this.

The extraordinarily high homeownership rate of Taiwan also reflects the under-developed rental market. In an industrial society, high job mobility enhances the demand for rental housing because of the short period of residence between job transfers. This also implies that housing resources in Taiwan are under-used. And there will be some welfare loss because people who need rental housing service can’t be satisfied. Among the reasons for this, intergenerational transfer is an important and subtle one. Because the intention to transfer housing in Taiwanese Society, the extra housing stocks will be under-used, empty or for rent temporarily. This should cause damage to the filtering down process, a term which means different quality of housing service matches different income levels. At the same time, most of the landlords in the rental market are individuals, not companies. They set up an acceptable rate of return and a narrow range of risk because of the transfer motive. Thus, the information on rental housing supply only circulates in a very small sub-market. Also, the housing rental market is under-developed and does not suit well the demand for modern urban life. Finally, the government and developers may over-estimate housing demand because they do not understand the institution among family members regarding housing ownership, intra-family transfer and its effects. There should thus be a great loss of resources, since real estate occupies 60% of Taiwanese family wealth.

Taiwan, as a developing country having just passed through a period of rapid social change, has a higher proportion of new building units than in developed countries. Since the households living in new building units should live there longer, so the rate of turnover of housing stock will be less. This further weakens the filtering process to provide different levels of housing service and worsens the allocation efficiency of huge housing resources.
VII. Conclusion

The 20-30% adults who live in houses which are owned by parents result in the rare high housing ownership rate of Taiwan, 82% in 2000. At the same time, while the convention wisdom related to intergenerational transfer is always focused on inheritance but not inter vivos gifts, the popularity of intergenerational housing transfer in contemporary Taiwan and Japan seems to raise a question waiting to be explained.

Taiwan underwent dramatic social change in the process of successful industrialization and urbanization. Changing rates of return in family investment, physical assets and human capital have caused some micro foundation of social change. The authority of parents has declined, and the development of family organization is toward the nuclear family. However, housing, instead of land, has become the major share of family wealth. In order to respond to the changing external socio-economic environment and enforce the social norm of family support of elder parents have developed intergenerational housing transfer. In fact, my empirical study of Taiwan proves that they have lots of chances to shape the patterns of interaction among family members and receive more material feedback if they proceed with housing transfer to the next generation. That’s what intergenerational control means.

Traditionally agricultural society develops a social norm to pass real estate down only to sons and give the major responsibility of support to elderly parents to inheritors. In fact, intergenerational housing transfer is a transformation of such a norm. Compared with other financial assets, housing is an efficient medium to execute the implicit contract between parents and adult children. In this viewpoint, intergenerational housing transfer can be regarded as a collective rational choice of the Taiwanese family, although rational choice is only one dimension to explain such a complex social phenomenon.

There are some special properties of housing which make it a very different medium of transfer. Intergenerational housing transfer can be an efficient way to influence the residential location of adult children because of the spatial fixity of housing. The persons who live in parentally-owned housing live closer to parents than the others. This fact indicates that housing transfer is not only an issue which connects both economics and sociology, but also is a kind of model which integrates space with time.
References

Cox, Donald


Chu, C.Y. Cyrus

1999  Lecture Note. Department of Economics, National Taiwan University.

Chu, C.Y. Cyrus & Yu, Roh-rong


Deutsch, Edwin


Forrest, Ray & Murie, Alan ed.


Hirayama, Yosuke & Hayakawa, Kazho

1995  “Home Ownership and Family Wealth in Japan” in Housing and

Hirshleifer, Jack


Klein, Benjamin & Crawford, Robert G. & Alchain, Arman A.


Kotlikoff, Laurence J.


Mayer, Christopher & Engelhardt, Gary V.


Mera, Koichi


Modigliani, Franco


Parsons, Donald O.

Pindyck, Robert S. & Rubinfeld, Daniel L.


Pollack, Robert A.


Tachibanaki, Toshiaki


Tsay, Ruey-Ming

Table 1. The Housing Ownership Rates of Taiwan, Japan, U.S.A and U.K.

<table>
<thead>
<tr>
<th>YEAR</th>
<th>Taiwan</th>
<th>Japan</th>
<th>U.S.A.</th>
<th>U.K.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1978</td>
<td>69.6</td>
<td>69.9</td>
<td>65.5</td>
<td>—</td>
</tr>
<tr>
<td>1983</td>
<td>75.0</td>
<td>62.0</td>
<td>63.5</td>
<td>—</td>
</tr>
<tr>
<td>1984</td>
<td>76.7</td>
<td>—</td>
<td>63.9</td>
<td>61</td>
</tr>
<tr>
<td>1988</td>
<td>79.1</td>
<td>61.1</td>
<td>63.8</td>
<td>66</td>
</tr>
<tr>
<td>1993</td>
<td>81.8</td>
<td>59.6</td>
<td>64.2</td>
<td>68</td>
</tr>
<tr>
<td>1998</td>
<td>84.6</td>
<td>60.3</td>
<td>66.4</td>
<td>69</td>
</tr>
</tbody>
</table>

Note: Data comes from government publications and official web sites.
Table 2. The Structure of the Housing Ownership Rate of Taiwan

<table>
<thead>
<tr>
<th></th>
<th>Self-owned</th>
<th>owned by Parents of husband’s wife’s Children</th>
<th>Sibling-owned</th>
<th>Rented</th>
<th>Dorm</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>1992</td>
<td>51.4</td>
<td>28.8</td>
<td>2.4</td>
<td>2.2</td>
<td>10.1</td>
<td>2.0</td>
</tr>
<tr>
<td>1996</td>
<td>65.7</td>
<td>13.3</td>
<td>5.0</td>
<td>2.1</td>
<td>9.7</td>
<td>1.6</td>
</tr>
</tbody>
</table>

Note: 1992 data comes from Taiwan Social Intention Survey. 1996 data comes from Taiwan Social Change Survey.
### Table 3. The Residential Distance Between Parents and Adult Children

**Living in Parentally-owned housing**

<table>
<thead>
<tr>
<th>Items</th>
<th>How far away from your father</th>
<th>% of</th>
<th>How far away from your mother</th>
<th>% of</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of samples</td>
<td>living in Parentally-owned housing</td>
<td></td>
<td>% of samples</td>
<td>living in Parentally-owned housing</td>
</tr>
<tr>
<td>Co-Resident</td>
<td>71.0</td>
<td>72.2</td>
<td>58.5</td>
<td>61.2</td>
</tr>
<tr>
<td>Live Next Door or in Same Building</td>
<td>2.1</td>
<td>6.6</td>
<td>3.1</td>
<td>8.4</td>
</tr>
<tr>
<td>Not in same building, but within ten minutes on foot</td>
<td>2.6</td>
<td>2.6</td>
<td>3.9</td>
<td>3.5</td>
</tr>
<tr>
<td>Over 30 minutes by car</td>
<td>8.4</td>
<td>7.9</td>
<td>12.2</td>
<td>8.8</td>
</tr>
<tr>
<td>30 〜60 minutes by car</td>
<td>3.5</td>
<td>1.8</td>
<td>4.3</td>
<td>4.4</td>
</tr>
<tr>
<td></td>
<td>1〜2 hours by car</td>
<td>Over 2 hours by car</td>
<td>Others</td>
<td>Total</td>
</tr>
<tr>
<td>--------------------------</td>
<td>-------------------</td>
<td>---------------------</td>
<td>--------</td>
<td>-------</td>
</tr>
<tr>
<td></td>
<td>3.7</td>
<td>7.0</td>
<td>1.7</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>3.1</td>
<td>4.8</td>
<td>0.9</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>5.7</td>
<td>10.4</td>
<td>1.7</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>4.0</td>
<td>9.3</td>
<td>0.4</td>
<td>100</td>
</tr>
</tbody>
</table>

Note1: The dataset is abstracted from PSFD. There are 227 persons living in parentally-owned housing in the whole sample of 2954 people.

Note2: “Another” includes overseas, don’t remember, not clear, don’t know, refuse to answer, missing value, etc..
Table 4. Estimated results of 3SLS

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Coefficient</th>
<th>t Value</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interception</td>
<td>-22.664</td>
<td>-0.85</td>
<td>26.79</td>
</tr>
<tr>
<td>Sex (Male = 1)</td>
<td>9.560</td>
<td>1.55</td>
<td>6.16</td>
</tr>
<tr>
<td>Education Level (Year)</td>
<td>1.131*</td>
<td>1.67</td>
<td>0.68</td>
</tr>
<tr>
<td>Income per Month (Thousand NT Dollars)</td>
<td>-0.0009</td>
<td>-0.12</td>
<td>0.01</td>
</tr>
<tr>
<td>Marriage (Married = 1)</td>
<td>-3.374</td>
<td>-0.27</td>
<td>12.68</td>
</tr>
<tr>
<td>Age of Parents</td>
<td>0.268</td>
<td>0.86</td>
<td>0.31</td>
</tr>
<tr>
<td>Father Mainlander (Yes = 1)</td>
<td>-7.181</td>
<td>-0.95</td>
<td>7.59</td>
</tr>
<tr>
<td>S1</td>
<td>128.698**</td>
<td>2.14</td>
<td>60.19</td>
</tr>
<tr>
<td>S2</td>
<td>42.022**</td>
<td>2.12</td>
<td>19.80</td>
</tr>
<tr>
<td>Visits (per year)</td>
<td>-0.680**</td>
<td>-2.16</td>
<td>0.31</td>
</tr>
<tr>
<td>Number of Sibling</td>
<td>0.693</td>
<td>0.62</td>
<td>1.12</td>
</tr>
<tr>
<td>Whether the housing is parentally-owned? (Yes = 1)</td>
<td>28.018</td>
<td>1.41</td>
<td>19.81</td>
</tr>
<tr>
<td>Did you receive any help on down payment from parents in the past ten years? (Yes = 1)</td>
<td>8.468</td>
<td>1.00</td>
<td>8.47</td>
</tr>
<tr>
<td>Have parents divided the property yet? (Yes = 1)</td>
<td>8.961</td>
<td>1.58</td>
<td>5.67</td>
</tr>
<tr>
<td>Number of Children (person)</td>
<td>0.231</td>
<td>0.10</td>
<td>2.28</td>
</tr>
</tbody>
</table>

The Dependent Variable is the visits per year

<p>| Interception       | -33.306     | -0.86   | 38.72              |
| Sex (Male = 1)     | 14.053**    | 2.11    | 6.65               |
| Education Level (year) | 1.662*     | 1.95    | 0.85               |
| Income per Month (Thousand NT Dollars) | -0.001 | -0.12 | 0.01 |
| Marriage (Married = 1) | -4.965 | -0.27 | 18.37 |</p>
<table>
<thead>
<tr>
<th></th>
<th>Coefficient</th>
<th>Std Error</th>
<th>T Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age of Parents</td>
<td>0.394</td>
<td>0.86</td>
<td>0.46</td>
</tr>
<tr>
<td>Father Mainlander (Yes = 1)</td>
<td>-10.553</td>
<td>-0.96</td>
<td>10.95</td>
</tr>
<tr>
<td>S1</td>
<td>189.196***</td>
<td>19.16</td>
<td>9.87</td>
</tr>
<tr>
<td>S2</td>
<td>61.775***</td>
<td>9.41</td>
<td>6.56</td>
</tr>
<tr>
<td>Net Money Feedback from Adult Children (Thousand NT Dollars per Month)</td>
<td>-1.469**</td>
<td>-2.40</td>
<td>0.61</td>
</tr>
<tr>
<td>Number of Sibling</td>
<td>1.018</td>
<td>0.61</td>
<td>1.67</td>
</tr>
<tr>
<td>Whether the house is parentally-owned? (Yes = 1)</td>
<td>41.194**</td>
<td>2.13</td>
<td>19.36</td>
</tr>
<tr>
<td>Did you receive any help of down payment from parents in the past ten years? (Yes = 1)</td>
<td>12.449</td>
<td>1.14</td>
<td>10.92</td>
</tr>
<tr>
<td>Have parents divided the property yet? (Yes = 1)</td>
<td>13.171*</td>
<td>1.89</td>
<td>6.98</td>
</tr>
<tr>
<td>Number of Children (person)</td>
<td>0.342</td>
<td>0.10</td>
<td>3.28</td>
</tr>
<tr>
<td>Number of Samples</td>
<td>1043</td>
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<td></td>
</tr>
</tbody>
</table>

***, **, * indicate the significance level is 1%, 5%, 10%, respectively.

Note1: The coefficient of $S_1$ means live in the same building or within 10 minutes on foot in comparison with over an hour by car. The coefficient of $S_2$ means living within an hour by car in comparison with over an hour by car.

Note2: Variable “Father Mainlander” represents the cultural difference with early migrants. Two million people accompanied with KMT, which had lost the civil war, from Mainland China to Taiwan in 1949.
<table>
<thead>
<tr>
<th>B’s Economic Rent</th>
<th>B’s Opportunity Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>A’s Economic Rent</td>
<td>A’s Opportunity Cost</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Appropriate Quasi-rent

Figure 1 Opportunity Cost and Appropriable Quasi-rent