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# The Effect of Prison Proximity on House Prices

Jurgen Jaakke, April 2019

**Abstract:** This Master's thesis studies the effect of prisons on house prices. This effect is estimated using the hedonic price method. Herewith, the effect of penitentiary institutions (regular prison), juvenile prisons and TBS clinics (detention under hospital orders) in the vicinity of houses will be clarified. The causal effect of closing a penitentiary institution is estimated using a difference-in-difference specification. Data used in this research is granted by the Dutch Association of Estate Agents [and Real Estate Experts] (Nederlandse Vereniging van Makelaars) which provided transaction information of houses sold between 2005 and 2017. The results of this research prove that penitentiary institutions have a negative impact on house prices in the vicinity and that closure of a penitentiary institution has a positive effect on house prices. Houses within a 300 meter radius of a penitentiary institution are -3.0% lower valued compared to houses that are outside a 300 meter radius. With almost the same magnitude, closure of a penitentiary institution has a positive effect of 2,8% on house prices within 300 meter. Herewith, it can be concluded that people's willingness to pay reduces due to close proximity of a penitentiary institution, since house prices are lower as a result. These findings may provide useful implications for policymakers who are attempting to resolve prison location issues.

**Keywords:** prisons, penitentiary institutions, externalities, hedonic modelling, difference-in-difference, house prices.

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Author: Jurgen Jaakke

Student number: 3256677

Primary supervisor: Dr. Michiel N. Daams

Secondary supervisor: Dr. Mark van Duijn

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# 1. Introduction

In order to further improve Dutch public finances the government ordered to cut back on the Custodial Institutions Agency (Dienst Justitiële Inrichtingen, hereinafter DJI) in 2013. The DJI is the government agency that ensures the execution of custodial sentences and custodial measures imposed by the court. In the year 2018, an amount of € 340 million needed to be economized on a total budget of € 2.0 billion (Ministry of Justice and Security, 2013). Because of the planned cutbacks, the Custodial Institutions Agency has drawn up the Master Plan DJI in which the austerity measures are stated. According to the master plan of the DJI, 26 prisons had to be closed. Ultimately, between 2012 and 2018, 14 penitentiary institutions (regular prisons) were closed. In addition, two TBS clinics (detention under hospital orders) and one juvenile detention center were closed. The austerity measures on the DJI have led to a lot of social agitation among local residents, because they wonder whether safety can be guaranteed. For homeowners around prisons it would be useful to know whether their sale prices are affected by near located prisons. Furthermore homeowners would like to know if they should sell their house before or after the closure of a prison? The way in which local residents respond and house prices react to the closure of a prison may be important for the central government in choice location issues. Therefore the effect of closing a prison on house prices will be investigated in this research.

According to literature, a prison is perceived as an undesirable facility (Schively, 2007). Nevertheless, communities are divided over the consequences of a prison in the living environment (Krause, 1992). Lidman et al. (1988) proves that more crime is present in areas with a prison in the near distance. This has a negative effect on the well-being of local residents (Farkas, 1999). Yet, literature is dissonant about the subject, for Smykla (1984) finds no evidence of an effect of a prison on house prices. Moreover, contrary proof of Hawas (1985) and Lidman et al. (1988) shows lower crime rates in the vicinity of a prison with an increase in house prices around prisons. However, boundaries of these researches are that they are not very recent and conducted only in the United States. Besides, according to McShane et al. (1992) previous studies that test the impact of prisons are poorly designed, where it is unable to determine whether the effects are caused by prisons.

Unlike in the United States, where prisons are often situated in isolated areas, Dutch prisons are present in populated areas where most people do not have a labour connection with the prison, this could lead to a considerable discrepancy in the effect. However, in Dutch or even the European context, there is no information available yet about the effect (of closing or opening) of a prison on house prices in the vicinity. This provides a research gap in the current literature about the external effects of a prison on the surrounding house prices. To fill the gap in the literature, and to find an answer on the main research question ‘What is the effect of a prison on house prices in the vicinity’, a hedonic model that uses the housing dataset of the Dutch Association of Estate Agents (Nederlandse Vereniging van Makelaars or NVM) will be used. Furthermore, the closing of a prison will be examined with a difference-in-

difference specification in the hedonic model. The corresponding sub research question is ‘What is the effect of closing a prison on house prices in the vicinity’.

## 2. Theory

In scientific literature there is much known about how house prices are composed. The fundament of real estate price theory starts with theories about rents and location. Rent is dependent of the profit potential of the location. So, the distance to the market has influence on rents (Von Thünen, 1826). If the distance to market is higher, the transport costs also become higher. Lower profit margins, due to transport costs, will result in lower rents (Von Thünen, 1826). This same principle of an equilibrium between rents and profit still holds today, but the distance to the market is now replaced by the distance to the Central Business District (Alonso, 1960). Tenants that can bid the highest rents will determine how close they are located to the CBD. This is the reason Banks and offices are often located in the CBD, and shops, houses, and agriculture are often located further away from the CBD in that order.

As well as location and function, also the physical conditions of real estate have influence on its value. Houses are known as a heterogeneous good with different attributes. House buyers tend to maximize utility given their budget constraints (Sirmans et al., 2005). Hereby, property values depend on prices people are willing to pay for a set of utility attributes. In other words, house prices are the sum of prices people are willing to pay for a set of individual house characteristics (Rosen, 1974). This method is called the hedonic price model and is used to determine the willingness to pay for characteristics related house prices (Rosen, 1974). In the hedonic model there will be corrected for the influence of amenities and externalities on house prices. (Dis)amenities are positive or negative attributes of the environment like close distance to the sea or green space (Daams et al., 2016; Bolitzer & Netusil, 2000; Jim & Chen, 2009). Externalities are positive or negative external effects of facilities caused by mankind, like for instance shopping malls, factories, airports, railways or windmills (Nelson, 2004; Galster et al., 2004; Bowes & Ihlanfeldt, 2001; Gibbons, 2015; Diao et al., 2016). This includes external effects of cultural heritage, architecture, unemployment, crime, traffic, roads, noise, pollution, property upkeep (Van Duijn & Rouwendal, 2013; Galster et al., 2004; Hughes & Sirmans, 1992; Wilkinson, 1973). In hedonic models there should be corrections for these (un)attractive neighbourhoods conditions because they influence house prices (Ellen et al., 2007). In this research will be focused on the external effects of prisons and the impact on house prices.

### 2.1 External effects of a prison

The construction of a prison in a community involves an emotional process. Residents are afraid that the construction of a prison will change the community in such a way that the lifestyle of the residents is affected (Carlson, 1988). The way in which the construction of a prison is perceived makes a large difference per individual and per community (Carlson, 1988). For example, due to economic reasons, a community can be strongly positive about the construction of a prison, while other communities are

strongly against the construction because of their insecurity perceptions towards the effect of the construction. The same in reverse could possibly be the case in prisons closures.

## 2.1 Social resistance against a prison in the neighbourhood.

Individual perceptions can differ greatly from perceptions of communities (Myers, 2004). Research of Krause (1992) about the perceptions of communities on the construction of a prison shows that, in the state of California in the United States, approximately 43% of the residents have a negative attitude towards prison allocation. Inhabitants of a neighbourhood are highly involved in the matter when a construction of a prison is announced. Martin (2000) shows that this could cause a great deal of resistance among the inhabitants. A reaction, similar in severe rejection, can also be triggered by the construction of an addiction clinic, detention center, social housing, homeless center and other facilities that accommodate vulnerable people in society (Schively, 2007). The response of the opposition caused by the construction of such unwanted facilities is called the NIMBY (not in my backyard) effect (Schively, 2007). Functions and facilities that create the NIMBY effect are also called LULUs (locally unwanted land use).

Although the need for a prison is recognized, a prison is seen as one of the most undesirable facilities in the residential environment (Takahashi, 1998). The greatest worries people have, when living near a prison arises from fear of crime and insecurity (Myers, 2004). The construction of a prison is in fact associated with many detriments, for example insecurity risks, crime, noise nuisance and deterioration of the view (Martin, 2000; Schively, 2007; Takahashi, 1998; Myers, 2004). The fear of crime due to the construction of a prison has a negative effect on the welfare of communities (Farkas, 1999). The reason for this is that the perception of subjective wellbeing in the neighbourhood is severely negatively affected (Farkas, 1999). The consequences of a prison in the vicinity are for example stigmatization of systematic perpetrators, detainees and sex offenders. Mainly relatively small communities resist the construction of a prison, more than large communities do (Shichor, 1992). In addition to subjective wellbeing, objective wellbeing can also be influenced, which is further explained in paragraph 2.3.

## 2.2 Social support in favour for a prison in the neighbourhood.

Yet there are also people who would like to see a prison in the community. American literature shows that these people are positive about the possible impulse it gives to the local economy as a result of job creation (Martin, 2000). It is stated that house prices usually rise after the arrival of a prison (Lidman et al, 1988). In most cases house prices in America had risen after construction of a prison, logically closing a prison could possibly cause lower house prices as a result of loss of employment.

## 2.3 Objective insecurity around prisons.

Even though it is argued that residents are afraid of potentially escaped prisoners (Shichor, 1992), there is no evidence in the Netherlands showing that neighbourhoods around a prison are less safe than other neighbourhoods. Results from American research about the impact of a prison on the crime figures are

diverse. One study in America shows that a prison has no impact on the crime figures (Smykla, 1984). Other research shows that in some cases a community with a prison has a lower crime rate compared to other comparable communities (Hawes, 1985). In contradiction, a large-scale research in the state of Washington showing crime figures are higher in communities where a prison is located, because recurrent detainees in society more often live near a prison during resocialisation (Lidman et al, 1988). In addition, there is evidence that the crime figures of a community do not differ significantly from before and after the construction of a prison (Millay, 1991).

The danger of prisoners returning into society may be that they will return to the same area as the prison. This forms a risk for the neighbourhood because criminals, who have already committed a criminal offense, have a higher chance of committing another criminal offense than ordinary citizens. Statistics Netherlands (CBS, Centraal Bureau voor de Statistiek) concluded that most offenses are committed close to home (CBS, 2002). Mistreatment, sexual harassment and threats occur in 50-60% of the cases within their own municipality. Individuals and families can reduce the chance of being involved in offenses by choosing a residential location with relatively lower crime rates. It appears that there is a negative relationship between US house prices and the number of registered offenses in a neighbourhood, thus people are willing to pay extra for a home in a neighbourhood where less crime occurs (Linden, 2008).

## 2.4 Effect of safety perceptions on house prices

Perceptions about perceived insecurity appear to have an impact on house prices. This is shown by a 2008 study in Florida where, if a sex offender comes to live in a neighbourhood, house prices in the immediate vicinity (within a radius of 0.1 mile) fall by 2.3%, which corresponds to an average of \$3,500 (Pope, 2008). It also appeared that when the sex offender moved again the price difference lifted, suggesting a causal connection. In this case, home buyers are willing to pay less for the same house at the same location due to the added insecurity experienced by a sex offender in the neighbourhood.

The same effect could also apply to the perceived insecurity of a prison in the vicinity. Although there is no evidence showing that neighbourhoods around a prison are less safe than other neighbourhoods, people could perceive those neighbourhoods as less safe. A prison may bring negative associations to mind, which makes a prison an undesirable facility (Takahashi, 1998). It could be that a higher fear of crime, which is the case in the Florida study, has a negative effect on house prices. The fear of crime caused by a prison is related to the distance to a prison. The effect decreases with distance. All external effects caused by prisons decrease with distance, so does the impact on the view, noise and safety risks. Also, because how people perceive prisons is related to the effect, there could be differences between prison types. TBS clinics can potentially have more negative effect on house prices than regular or juvenile prisons, because TBS clinics can have an increased influence on fear of crime. These concepts above are visualized in the conceptual model (figure 1). The arrows indicate the connections between

the variables that are included in this study. In this model, the explained variable is house prices. There will be investigated if there is an effect on house prices if a prison is present within a certain distance. In this case, it is suggested that a prison within a certain distance influences house prices in a different manner and that the size of the effect depends respectively on the distance to the prison and the type of prison. If a house has a transaction date after the closure of a prison, it can be assumed that the external effects of the prison will not affect the surrounding house prices. Likewise, the transaction date has an effect on sales prices, because generally house prices tend to rise over time as a result of inflation while it is also dependent on the housing market and economy. Besides, the characteristics of a house and the neighbourhood have an effect on the sales price. This, and further information about the model and method, will be explained in chapter three.

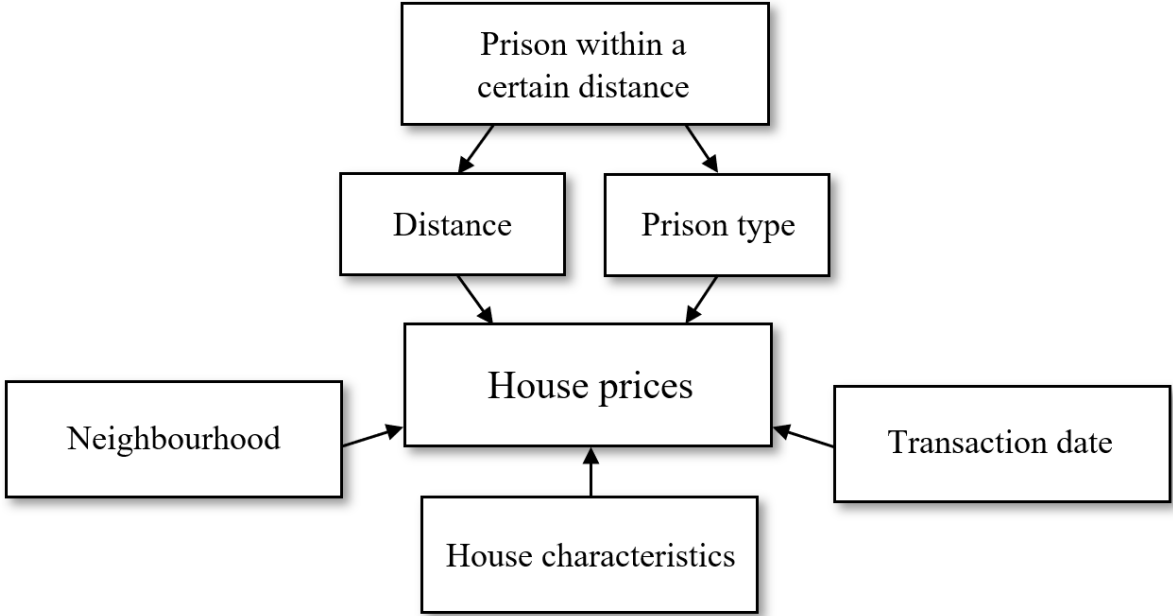


Figure 1: Conceptual model

It is expected that a prison in the vicinity will have a negative effect on house prices and that the closure of a prison will have a positive effect on house prices in the area. The corresponding hypotheses are formulated as follows:

H1: *A prison has a negative effect on house prices in the vicinity.*

H2: *Closure of a prison has a positive effect on house prices in the vicinity.*



### 3. Method

During this research a hedonic price model (multiple linear regression) is used, which is widely recognized in science as a suitable method for explaining price variation based on real estate properties (Rosen, 1974; Case, 1991). The underlying theory is based on the notion that when people buy a house with a given budget, they choose the house with the most optimal balance between attractive and unattractive characteristics of the house (Hite, 2001). House buyers also take location attributes into consideration. These are characteristics of the neighbourhood or surrounding. Locational characteristics that are often valued by house buyers are for instance the distance to city centres, green, lakes and water and public transport (Xiao, 2017). Because of this house prices depend on the (dis)amenities present in the area (Cheshire & Sheppard, 1995). The influence of externalities and (dis)amenities are widely discussed in scientific literature. An amenity is defined as a positive location attribute and a disamenity is defined as a negative location attribute (Cohen & Coughlin, 2008). Using the hedonic price method, house prices will show if a prison is seen as an externality. This specific hedonic model tests the effect of a prison (penitentiary institution), TBS clinic or juvenile prison within a certain radius from a property.

#### 3.1 Hedonic method

Based on hedonic price models for real estate properties, the sales price depends on the physical attributes of a property object and other factors (Sirmans, 2005). The first hedonic model that is used in this research is defined as follows:

$$(1) \ln(P)_{ijt} = \alpha + \sum_{a=1}^A \beta_a X_{kit} + \beta_2 L_j + \beta_3 T_t + \beta_4 G_{idpt} + \varepsilon_{it}$$

Where  $\ln(P)_{ijt}$  is the natural logarithm of the sales price of property  $i$  located in a neighbourhood  $j$  while the transaction was in quarter  $t$ ;  $\alpha$  represents the constant;  $X_{kit}$  is the  $a$ th relevant property characteristic ( $a = 1, \dots, A$ ) for several property characteristics  $k$  of a property  $i$  sold in quarter  $t$ ; Property characteristics that are included in the hedonic models are; building period; house type; living area (logarithm); number of rooms; number of balconies; number of dormer windows; number of roof terraces; number of sculleries; number of bathrooms; type of parking space; garden position; garden condition; condition (inside).  $L$  is a neighbourhood dummy controlling for neighbourhood fixed effects  $j$  (506 Postal Code 4 areas);  $T$  indicates the different time periods in quarters  $t$  and is controlling for time fixed effects (2005Q1 t/m 2017Q4);  $G$  is a dummy variable indicating if the property  $i$  is within a 300 meter radius  $d$  (Euclidian distance) of a prison type  $p$  ( $p =$  penitentiary institution, TBS clinic, juvenile prison) in time quarter  $t$ ;  $\varepsilon_{it}$  is the error term in this equation. Houses outside a radius of 300 meter in relation to a penitentiary institution, a TBS clinic or juvenile prison are the control group. Based on the significance of the results of initial regression models a radius of 300 meter is used to measure the effect. In later stages, more distances will be investigated, as in comparable research, where the impact of crematory

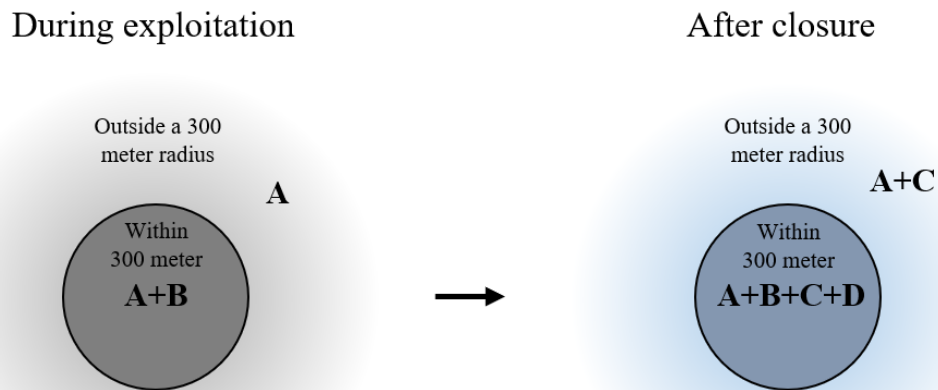
facilities is investigated, a declining effect within a radius of 0.1 to 0.5 miles was proven (Agee & Crocker 2010). This corresponds with an effect from 160 meter declining to 800 meter.

### 3.2 Difference-in-difference method

In order to specifically measure the effect of an ‘closing’ of a penitentiary institution (regular prison), a difference-in-difference method is used. During the research period of 2005 till 2017, only two TBS clinics and one juvenile detention centre were closed. In the same period fourteen penitentiary institutions were closed. To make proper statements of the results, TBS clinics and juvenile prisons are excluded in this specification and therefore the focus is on penitentiary institutions (regular prisons). By means of a difference-in-difference method, it can be statistically determined whether there are differences between a target group, affected by a certain event (treatment), and a control group which does not receive treatment, while correcting for price changes in over time. The hedonic model with a difference-in-difference specification is as follows:

$$(2) \quad \ln(P)_{ijt} = \alpha + \sum_{k=1}^A \beta_k X_{kit} + \beta_2 L_j + \beta_3 T_t + \beta_4 D_{id} + \beta_5 GS_{ic} + \beta_6 D^*GS_{icd} + \varepsilon_{it}$$

The following is new to the model: this method measures the difference between two differences, which are explained in figure 2. First of all, during exploitation there is a single difference between A and A+B. This difference is B (consider that:  $(A+B) - (A) = B$ ). In the model, B is represented as  $\beta_4 D_{id}$  and is a dummy variable for the target group with an one for houses  $i$  within a radius of 300 meters  $d$  of a penitentiary institution; Secondly, after closure, there is a second single difference B+D ( $(A+B+C+D) - (A+C) = B+D$ ). In the model, B+D is represented as  $\beta_5 GS_{ic}$  and is a dummy variable which takes the value 1 for all sales  $i$  after the closure of a penitentiary institution  $c$  outside a radius of 300 meters; The difference-in-difference = (single difference 2 – single difference 1) =  $((B+D) - (B) = D$ ). In the model D is  $\beta_6 D^*GS_{icd}$ , which is the interaction variable (between  $\beta_4 D_{id}$  and  $\beta_5 GS_{ic}$ ) with all sales  $i$  after the closure of a penitentiary institution  $c$ , within a radius of 300 meters  $d$ . The difference-in-difference method is the most appropriate for examining the effect of ‘closing’ a penitentiary institution on house prices, because this method isolates the effect caused by prisons (Berger et al., 2016).



Within 300m	After closure	In model 2	In figure 2
0	0	Control group 'before treatment'	A
1	0	$\beta_4 D$ Treatment group 'before treatment'	A+B
0	1	$\beta_5 GS$ Control group 'after treatment'	A+C
1	1	$\beta_6 D * GS$ Treatment group 'after treatment' (interaction within 300 meter * after closure)	A+B+C+D

Figure 2: Functioning of the interaction variable of closing a prison.

#### 4. Data and study area

Between 2012 and 2018, fourteen penitentiary institutions were closed in the Netherlands. In addition, two TBS clinics and one juvenile detention centre have been closed. A total of three new penitentiary institutions have been opened. The total list of all Dutch prisons (62) with associated characteristics has been added as Appendix 2.

As stated in chapter 3, while performing a difference-in-difference analysis the effect of an intervention is measured. It looks at the difference between a target group and a control group, before and after the treatment. For this reason it is very important to have a comparable control group that is unaffected by the treatment. Because of this, all houses in the same municipality of the prison are included in the used dataset. Without a close cut-off distance, it can be assumed that a large group of unaffected houses are included in the dataset. However, a very large dataset can be a disadvantage, because other types of houses could be built at longer distances. Likewise, in the hedonic regression is controlled for differences between the two groups by several control variables, as for instance: house type, living area, parking space etc. Descriptive statistics of the target groups and control groups are added in appendix 9. In appendix 4 the audit of the assumptions for multiple linear regressions is reported.

The house prices and characteristics were obtained from the Dutch Association of Estate Agents (Nederlandse Vereniging van Makelaars or NVM). The NVM collects data from approximately 75% of

the total housing market in the Netherlands. This set is often used in scientific research on the real estate market (Agee & Crocker, 2010). The total crude subset that was used concerns 967,216 transactions/observations from 43 municipalities between 2005Q1 through 2017Q4. The municipalities were selected on the basis of locations of both closed and operational prisons.

The distance variable has been added to the dataset using ArcGIS by using the Euclidean Distance tool. As a result, a variable with the distance in meters to the nearest prison has been added. In addition, a variable for each transaction that took place before the 'opening' or 'closing' of the prison was added. Subsequently, observation before 'opening' of a prison, unusable observations, double variables and outliers were removed from the dataset. In model 1, observation after 'closing' a prison are removed from the set. In model 2, observation after 'closing' a prison are included, and observations around TBS clinics and juvenile prisons are removed from the dataset. Table 1 and 2 show the compact summary of statistics per model and per group. Despite, that the groups appear to be relatively similar, it is noticeable that there are many transactions that took place after closure of a penitentiary institution within 300 meters relative to the transactions after closure of the control group. Price development of houses in the target and control group are added in appendix 10.

As stated, the Netherlands had in total 62 prisons that were operational in a period between 2005 and 2017. These are shown on a map in appendix 3. Nowadays forty-five prisons are still operational. There are various locational differences between different types of prisons. Of course, all three types have as main purpose to detain criminals and to not let them escape, so that they cannot pose a threat to society.

Penitentiary Institutions are often large structures suited to house a high capacity of prisoners. These buildings have large solid walls, high fences, bars and camera surveillance. It is understandable, that such a structure has an influence on its surrounding when it is in a residential area. In general, there are relatively few houses around a penitentiary institution, and they are often built on industrial sites. Penitentiary institutions that have been closed in recent years, are relatively close to residential neighbourhoods compared to new penitentiary institutions. TBS clinics are generally located in remote areas, in vicinity of green area. Juvenile prisons are also generally located in remote areas. This with few exceptions of juvenile prisons that are situated in a residential area.

The location of a prison and therefore also the number of houses around a prison are also dependent on the year of construction. In general, prisons are built at locations where as few local residents as possible undergo the externalities of a prison. Various prisons have been placed on the border of a municipality, as a result few residents as possible from the own municipality defect against the location decision. Dome prisons (in Dutch Koepelgevangenissen) are built in the period before 1900 and therefore monumental. Through agglomeration, residential areas were built around these prisons. Nowadays, these prisons are closed and will get new functions.

**Compact summary of statistics of model 1**

Variable	Obs	Mean	Std. Dev.	Min	Max
<i>Target group:</i>					
<i>within 300 meters of a penitentiary institution, during exploitation and after closure</i>					
Province	2,134	7.85239	1.84293	2	12
Municipality	2,134	426.8805	188.2368	80	1699
Building period	2,134	3.500469	2.553644	1	9
Living area	2,134	106.3533	52.6921	26	450
House type	2,134	16.17057	8.237733	2	27
Sales price	2,134	284,775.8	182,812.3	56000	1275000
Number of rooms	2,134	3.965792	1.738198	1	14
Distance to prison	2,134	220.7666	57.64297	50	292
<i>Target group:</i>					
<i>within 300 meters of a tbs-clinic, during exploitation</i>					
Province	938	5.979744	2.655739	1	8
Municipality	938	266.6684	155.8491	14	1859
Building period	938	3.858209	2.662868	1	9
Living area	938	87.52026	37.59488	30	344
House type	938	16.21429	8.252287	2	27
Sales price	938	236,900	96,707.13	67500	1070000
Number of rooms	938	3.590618	1.215691	1	13
Distance to prison	938	231.7633	47.69045	71	292
<i>Target group:</i>					
<i>within 300 meters of a juvenile prison, during exploitation</i>					
Province	143	6.00000	1.144491	1	9
Municipality	143	282.5594	122.7959	14	1525
Building period	143	4.818182	2.524908	1	9
Living area	143	135.9371	42.42777	40	350
House type	143	9.51049	7.503865	2	24
Sales price	143	312,645.1	111,617.8	143000	785000
Number of rooms	143	5.118881	1.616332	2	11
Distance to prison	143	228.5385	45.64572	100	292
<i>Control group</i>					
Province	563,403	7.581942	2.604258	1	12
Municipality	563,403	461.2905	311.2944	14	1883
Building period	563,403	5.159186	2.511441	0	9
Living area	563,403	108.7826	44.52533	26	499
House type	563,403	13.59896	8.881875	2	27
Sales price	563,403	234,969.6	143,108.8	50100	1499000
Number of rooms	563,403	4.202439	1.509896	1	14
Distance to prison	563,402	3,406.496	2,363.533	300	25136

Table 1: descriptive statistics of the target groups relative to the control group of model 1.

**Compact summary of statistics of model 2**

Variable	Obs	Mean	Std. Dev.	Min	Max
<i>Target group: penitentiary institution</i>					
<i>within 300 meters of a penitentiary institution, during exploitation and after closure</i>					
Province	2,861	7.860538	1.682006	2	11
Municipality	2,861	420.4705	174.8285	80	1699
Building period	2,861	3.307235	2.521858	1	9
Living area	2,861	104.7176	53.0556	26	460
House type	2,861	16.8158	7.999212	2	27
Sales price	2,861	307,535.2	200,978.6	56000	1490000
Number of rooms	2,861	3.928696	1.723902	1	14
Distance to prison	2,861	218.1073	58.2659	50	292
<i>Control group</i>					
Province	445,632	7.897267	2.276137	1	12
Municipality	445,632	484.6629	297.5449	14	1883
Building period	445,632	5.037477	2.549349	0	9
Living area	445,632	109.0807	45.08392	26	498
House type	445,632	13.73876	8.868503	2	27
Sales price	445,632	239,946.4	154,293.5	50100	1499000
Number of rooms	445,632	4.214105	1.525448	1	14
Distance to prison	445,631	3,665.011	2,533.553	300	25136

Table 2: descriptive statistics of the target groups relative to the control group of model 2.

## 5. Results

In this part, the results of the hedonic method and the difference-in-difference method are discussed. There are three versions of the model to examine the impact of the quarter dummies and postal code dummies on the explained variance. In model 1, in which the property characteristics, quarters and postal code areas are included, there is an explained variance (R-squared) of 0.8706. This means that the variation of the sales price for approximately 87% is explained by the variables in the regression model. If a house is situated within 300 meters of a penitentiary institution that is in use, it has a coefficient of -0.031. This means that these houses are -3.01%<sup>1</sup> lower valued compared to houses that are outside a 300 meter radius from a prison (PI). The proximity of a TBS clinic has an effect of -1.72%. The price impact of a juvenile prison is -5.85%. These effects are significant at a 99% confidence level. When postal code dummies are included, which control for neighbourhood fixed effects on the local level, the positive effects in model 1.1 and 1.2 within 300 meters turn negative in model 1.3. Considering that prisons are located in relative highly valued areas on the national level, as can be seen in appendix 3 where most prisons are located in the Randstad. The total results of model 1 are added in appendix 7.

<sup>1</sup> (((exp ^ -0.0305971) - 1) \* 100).

Table 3: Model 1 at a radius of 300 meters.

**Model 1**

<b>Hedonic method</b>	<b>Model 1.1</b>	<b>Model 1.2</b>	<b>Model 1.3</b>
VARIABLES	Log(price)	Log(price)	Log(price)
Within 300 meters of a penitentiary institution	.0771581***	.0795214***	-.0305971***
Within 300 meters of a TBS clinic	.1539789***	.1506089***	-.0173166***
Within 300 meters of a juvenile prison	.1420674***	.144017***	-.0602492***
Constant	8.270483***	8.174147***	9.120988***
Property characteristics	yes	yes	yes
Quarter dummies	no	yes	yes
Postal code 4 areas	no	no	yes
Observations	301.716	566.618	566.618
R-squared	0.6556	0.6601	0.8706
RMSE	.28632	.28016	.17296

The dependent variable is the natural logarithm of the sales price. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Because it is expected that the effects of a prison on house prices are affected by distance, model 1 is also performed at different distances (table 4). Intervals of 50 meters are used to investigate to what extent the effect differs per distance category. The effects in table 4 are shown in percentages.

Table 4: Model 1 at distances from 100 till 700 meters.

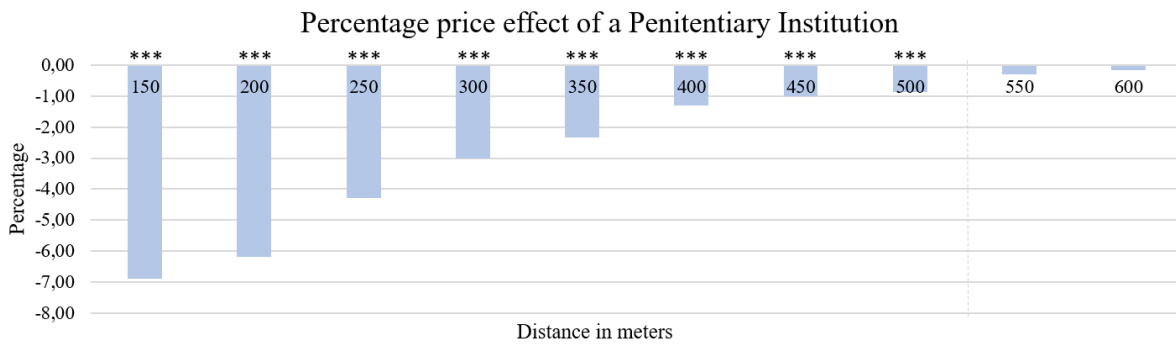
**Model 1: Hedonic method at different distances in percentages**

Target distance in meters	100	150	200	250	300	350	400	450	500	550	600	650	700
VARIABLES	%	%	%	%	%	%	%	%	%	%	%	%	%
"Within 'target' meters of"													
" " a penitentiary institution	-4.4	-6.9***	-6.2***	-4.3***	-3.0***	-2.4***	-1.3***	-1.0***	-0.9***	-0.3	-0.2	0.13	0.5***
" " a TBS clinic	-19.2**	-2.1	-0.65	-1.5**	-1.7***	-1.9***	-1.7***	-1.4***	-1.4***	-1.0***	-0.4	-0.45	-0.5***
" " a juvenile prison	omitted	-9.8	-10.0**	-10.5**	-5.9***	-5.4***	-3.5***	-2.9***	-1.1	-0.7	1.0	1.2**	1.8***

The dependent variable is the sales price in percentages. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

The total results of model 1 at different distances are added in appendix 5. According to the results as shown in figure 4, the effect of a penitentiary institution is very robust and has a clear negative effect that decays at further distances. This effect is highly significant at distances between 150 and 500 meters. Although an effect within a distance of 100 meters is expected, no significant effect is measured because there are not enough observations within 100 meters of a prison. On itself, this is very logical because there are almost no houses located around the direct vicinity of a prison. This also holds for TBS clinics and juvenile prisons, where no significant effects are measured in close distances. A penitentiary institution has the following effect on house prices within a distance of 150, 300 and 450 meters: -6.9%; -3.0%; -1.0%.

Figure 4: Effect of presence of a penitentiary institution on house prices in percentages.



The presence of a TBS clinic also has a negative effect on house prices, but it is less than the effect of penitentiary institutions. The difference can probably be explained by the building size. Penitentiary institutions have a mean capacity of around 365 prisoners while TBS clinics have a mean capacity of around 140 prisoners. Juvenile prisons have a capacity of 95 prisoners. Larger facilities expel more noise, traffic, disruption and activity. For that reason smaller facilities in a community are often more acceptable (Repper & Brooker, 1996). The effect of presence of a TBS clinic is as follows at 300 and 450 meters: -1.7%; -1.4%.

The effect of a juvenile prison is only highly significant at distances between 300 and 450 meters; -5.9%; -2,9%. It has a relatively short range of high significance. For this reason, the results of the impact of a juvenile prison on house prices is not that robust.

Overall, it can be stated that the results support the hypothesis that *'A prison has a negative effect on house prices in the vicinity'*. People do negatively value the external effects of a prison. This holds for all three types of prisons.

The effect of a penitentiary institution is the most robust and shows the most reliable results. To isolate the effect of closing a prison, a difference-in-difference specification was applied in model 2 (Table 5). The total results are added in appendix 8. The focus was on the influence of 'closing' a penitentiary institution on house prices. The closure of a juvenile prison or a TBS clinic is not included. As 300 meters shows reliable results in the hedonic model, the 300 meters boundary is also used in the difference-in-difference specification. The effect of 'closing' a penitentiary institution is based on the closure of all 14 closed penitentiary institutions (treated houses: sales after closure within) compared to all 41 Dutch penitentiary institutions during exploitation (reference category) in the period of 2005Q1 till 2017Q4.



Table 5: Model 2.

<b>Model 2</b> <b>Difference-in-difference method</b>	<b>Model 2</b>
VARIABLES	Log(price)
Within a 300 meter radius of a penitentiary institution	-.0371077***
After closure	.1083991***
Within a 300 meter radius of a penitentiary institution * after closure	.0272334***
Constant	9.031462***
Property characteristics	yes
Quarter dummies	yes
Postal code 4 areas	yes
Observations	448.493
R-squared	0.8733
RMSE	.17871

The dependent variable is the natural logarithm of the sales price. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

From the results of model 2, house prices within 300 meters of a penitentiary institution (regardless of whether it is during operation or after closure) are about  $-3.64\%^2$  lower. The transactions of houses, nearest to a closed prison, that took place after the closure are approximately 11.45% higher. This is a logical consequence, since house prices are rising over time in the investigated period from 2005 till 2017, excluding the period 2011 until 2014. The interaction between these two variables, within 300 meter and after closure, indicate the price difference due to the closing of the penitentiary institution. The results show that the closure of a penitentiary institution has a positive effect of 2,76% on house prices within 300 meter.

The outcome of the hedonic model (1) and the difference-in-difference model (2) both show that a penitentiary institution has a negative effect on surrounding house prices. Also, both effects are very similar in magnitude  $-3,0\%$  (1) when a penitentiary institution is within 300 meters compared to a  $2,8\%$  (2) positive price change after the closure. To check the sensitivity of model 2 and to check to what extent the positive effect of closing a penitentiary institution differs per distance category, model 2 is also executed at distance intervals of 50 meters (table 6).

<sup>2</sup>  $((\exp^{-0.0371077}) - 1) * 100$ .

Table 6: Model 2 at distances from 100 till 500 meters.

**Model 2: Difference-in-difference method at different distances**

Target distance in meters	100	150	200	250	300	350	400	450	500
VARIABLES	Log(price)	Log(price)	Log(price)	Log(price)	Log(price)	Log(price)	Log(price)	Log(price)	Log(price)
Within 'target' meters of a penitentiary institution	-.046680	-.077470***	-.072827***	-.053049***	-.037107***	-.029219***	-.017795***	-.014961***	-.014056***
After closure	.108756***	.108656***	.108515***	.108456***	.108399***	.10839***	.108199***	.108071***	.108168***
Within a 300 meter radius of a penitentiary institution * after closure	.155026**	.062370***	.056387***	.040773***	.027233***	.020042***	.021448***	.019443***	.013938***
Constant	9.08996***	9.09020***	9.09038***	9.09034***	9.09044***	9.09044***	9.09040***	9.09031***	9.09036***
Property characteristics	yes	yes	yes	yes	yes	yes	yes	yes	yes
Quarter dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes
Postal code 4 areas	yes	yes	yes	yes	yes	yes	yes	yes	yes
Observations	448.493	448.493	448.493	448.493	448.493	448.493	448.493	448.493	448.493
R-squared	0.8733	0.8733	0.8733	0.8733	0.8733	0.8733	0.8733	0.8733	0.8733
RMSE	.17871	.17871	.17870	.17870	.17870	.17870	.17870	.17871	.17871

The dependent variable is the natural logarithm of the sales price. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

In table 6, the interaction variable that examines the closure of a prison shows a positive and highly significant effect for distances between 150 and 500 meters. Also, as in model 1, the magnitude of the effect decays with distance. To better understand the effects given by the natural logarithm of the price, in table 7 the price effect is given in percentages. The declining course of the effect is shown in figure 5.

Table 7: Interaction variable 'Within target meters of a penitentiary institution \* after closure' in percentages.

**Model 2: Difference-in-difference method at different distances in percentages**

Target distance in meters	100	150	200	250	300	350	400	450	500	
VARIABLES	%	%	%	%	%	%	%	%	%	
Within 'target' meters of a penitentiary institution * after closure		16.7**	6.4***	5.8***	4.2***	2.8***	2.0***	2.2***	2.0***	1.4***

The dependent variable is the sales price in percentages. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

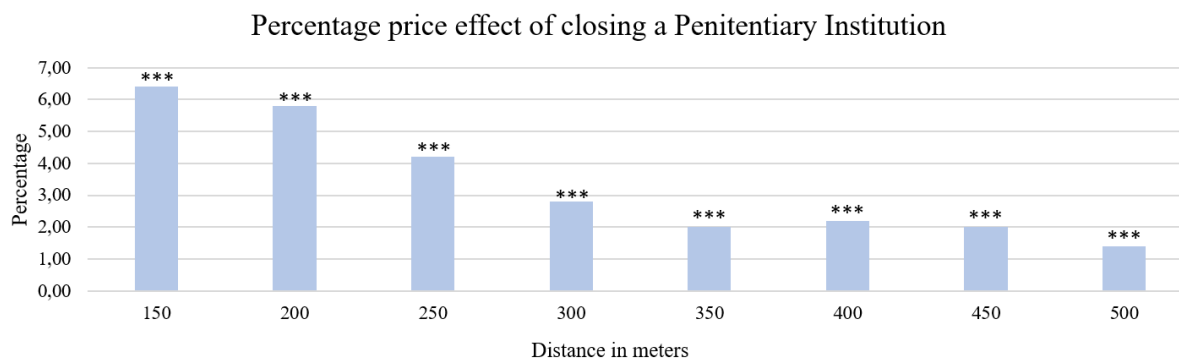


Figure 5: Graph of the effect of closing a penitentiary institution on house prices in percentages.

As well as in model 1, also the results of model 2 are very robust and show a clear positive effect that decays at further distances. Likewise, the effect within the distances of 150 until 500 meters is highly significant.

The results of model 2 support the hypothesis that *'Closure of a prison has a positive effect on house prices in the vicinity'*.

Penitentiary institutions have an effect on house prices within a 500 meter radius. After 500 meters the effect is not significant anymore and therefore negligible. External prison effects as noise nuisance, the feeling of insecurity and deterioration of the view are probably the most prominent. After closure of a penitentiary institution the effects caused by noise and insecurity feelings are diminished, but deterioration of the view is still present. Nevertheless, after closing, the institution building has the potential to be redeveloped and therefore could add value. However, both hypotheses are accepted and it is proved that, in Dutch context, penitentiary institutions have a negative effect on house prices. Table 8 is summarizing the effects of a penitentiary institution of model 1 and model 2.

Figure 8: Main effects of a penitentiary institution on house prices.

**Summary of effects on house prices**

<b>Target distance in meters</b>	<b>150</b>	<b>200</b>	<b>250</b>	<b>300</b>	<b>350</b>	<b>400</b>	<b>450</b>	<b>500</b>
Within 'target' meters of a penitentiary institution	-7,1%	-6,4%	-4,4%	-3,1%	-2,4%	-1,3%	-1,0%	-0,9%
Within 'target' meters of 'closing' a penitentiary institution	6,4%	5,8%	4,2%	2,7%	2,0%	2,2%	2,0%	1,4%

All percentages have a significance of  $p < 0.01$

## 6. Discussion

Existence of prisons is very important for society to minimize risk of social agitation and to stimulate normal functioning of society. Yet, there is public resistance towards the siting of prisons and facilities for people with mental health problems (Repper & Brooker, 1996). This is mainly because a prison is seen as an unwanted facility in the residential area (Schively, 2007). The results of this research are in line with expectations, as various qualitative and quantitative studies show that people expect lower house prices as a result of the construction of a prison (Shichor, 1992; Myers, 2004; Takahashi, 1998; Krause, 1992; Farkas, 1999, Schively, 2007). However, earlier research of Lidman et al. (1988), proved that house prices around prisons are valued higher (Lidman et al, 1988, Martin, 2000; Carlson, 1990). Carlson states that according to Lidman and his associates the effect of a prison differs per location. In their research no negative effects on property values were found. Economic influences like higher salaries and more capital expenditures were an economic benefit in all locations. The effect depends on the prison capacity relative to the size of the community. Besides, it seems that local context can heavily

impact how people perceive a prison. Farkas states in his research that media plays an important role in shaping public opinion and setting the tone for prison siting (1999). For policy makers it is important to know that resistance is susceptible to the design of internal and external spaces of the facility (Repper & Brooker, 1996). Likewise, for policy makers it is essential to know that, in high-density populated inner-city areas, a prison affects more houses than in low-density rural areas. Thus in high-density populated areas, relatively more people perceive the negative external effects. Whereas in low-density populated rural areas economic impacts, for instance the impact of employment and spill-over effects, have a relatively greater impact on the economy in the area. Nevertheless, the negative effects of a prison are still more dominant than the positive effects.

Almost every research has data limitations, and so does this research. All 62 Dutch prisons that were in operation between 2005Q1 and 2017Q4 were included in this study. Distinction has been made between penitentiary institutions, juvenile prisons and TBS clinics, since different effects were expected per group. TBS clinics and juvenile prisons weren't included in the difference-in-difference specification, because no generalized results can be concluded out of one closed juvenile prison and two closed TBS clinics. Due to the focus on penitentiary institutions the results of model 2 are very robust.

Secondly, as penitentiary institutions do have an effect on house prices, it should be considered in combination with prison siting. The effect of a prison in the vicinity could differ in growth and shrinkage areas or whether the area is located in the Randstad. This is because in low-density rural areas the positive economic effects of a prison are more prominent relative to urban areas. In this research no distinction has been made between the respective areas, but is controlled for neighbour fixed effects by adding postal code areas to the model, which control for economic effects.

Thirdly, the choice of the control group has been a trade-off between a large control group, which is unaffected by the examined effect of prisons, and a control group that is reasonably comparable to the target group. In this thesis the cut-off distance does not limit the total observations in the dataset, because there is none. This is done because it could be possible that houses, that are affected, are falsely taken out of the analysis. Houses in the same municipality as the prison are included in the control group.

For further research it is suggested that, qualitative research on the perception of residents around prisons can provide broader perspective on the matter. It would be intriguing to know how perceptions about prisons emerge and which factors influence the personal experience.

## 7. Conclusions

This research topic was about the effect of prisons on house prices. The focus was on the effect of regular prisons 'penitentiary institutions'. For the three prison types: penitentiary institutions, TBS clinics and juvenile prisons, by means of a hedonic price method, the price effect of a prison within a certain distance of a house is examined. By means of a difference-in-difference specification, the effect of

closing a prison on house prices has been investigated. Dutch housing transactions from the NVM database from the year 2005 till the end of year 2017 were incorporated in this research. There were 62 prisons included in this research, of which 41 penitentiary institutions, whereof 14 were closed.

In the Dutch context it appears that penitentiary institutions have a negative impact on house prices and a closure of a penitentiary institution has a positive effect on house prices in the vicinity. This effect is very significant and decays at further distance until 500 meters. According to the results from the hedonic price method, houses within a 300 meter radius are -3.0% lower valued compared to houses that are outside a 300 meter radius from a penitentiary institution. There is quite a difference between the proximities, within 150 meters of penitentiary institution there is an effect of -6.9% and within 450 meters an effect of -1.0% on house prices. These effects are significant at a 99% confidence level. Furthermore, closure of a prison has a positive effect on house prices in the vicinity. The results namely show that the closure of a penitentiary institution has a positive effect of 2,8% on house prices within 300 meter. Closure of a penitentiary institution within a distance of 150 meters has an effect of 6.4% and within 450 meters an effect of 2.0% on house prices.

These findings may provide useful implications for policymakers and government officials who are attempting to resolve prison location issues. As a society, we need prisons. Although they are essential, the results of this research prove that the presence of a penitentiary institution within a certain distance leads to lower house prices. However, it can be concluded that the negative effect of -3.0% of presence of a penitentiary institution within 300 meters, can be reversible since the magnitude of the effect of closing a penitentiary institution is thoroughly similar (2.8%). This master's thesis delivers evidence to support the argument that vicinity of prisons reduces people's willingness to pay, considering that house prices around prisons are lower.

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## Appendix 1: Dutch context.

### Context austerity measures

Because of the planned cutbacks, the Custodial Institutions Agency has drawn up the Master Plan DJI in which the austerity measures are listed. The measures are mainly based on the use of cheaper modalities and the reduction of DJI capacity. In cheaper modalities one should think of a more sober regime for arrestees and preventive attachments, more electronic detention, more use of multi-person cells and a reduction of the duration of treatment of available persons. The reduction of capacity relates to the closure of various DJI locations in the Netherlands. This can lead to cost reductions on accommodation and staff. According to the master plan of the DJI, 26 prisons had to be closed. Because of criticism of the unions on the austerity plans, the plan was adjusted and nineteen prisons had to be closed. When the government is choosing to close a location, the regional labour market, operational management, resocialisation (from the point of view of recidivism reduction) and specialisms (for the maintenance of specialist expertise) were taken into account.

### General context about the crime situation in the Netherlands

According to Statistics Netherlands (CBS), the number of violent crimes, property crimes and vandalism offenses experienced has decreased by 29% between 2012 and 2017 (Statistics Netherlands, 2018). The number of registered crimes also decreased by 20-35% depending on the type of crime (ibid.). On the other hand, around 27.6% of the 1,200,825 registered crimes were resolved in 2010; while 23,0% of the 830,780 registered crimes were resolved in 2017 (CBS, 2018). In absolute numbers, the number of annually dissolved crimes fell from 331,305 in the same period to 191,095 (ibid). The lower detection rate of crimes affects the fact that fewer prison sentences are imposed.

The number of enforced penalties in the Netherlands increased slightly from 31,690 to 32,540 in the period 2003 to 2016 (Statline, 2017). This while the number of imposed unconditional prison sentences decreased by 46% in the same period, from 29,220 in 2003 to 15,650 in 2016 (ibid). According to Ben Vollaard, perpetrators are increasingly being given an alternative punishment, including serious crimes, instead of a prison sentence (Volkskrant, 2016). As a result of these developments, vacancies are emerging in the prisons (NRC, 2017).

## Appendix 2: List of Dutch prisons.

*Prison database*

NR.	Name	Municipality	Postal code	Opened	Closed	Capacity
1	FPC 2landen Altrecht de Kijvelanden (TBS)	Utrecht	3582 EP		1-4-2015	58
2	FPC De Kijvelanden (TBS)	Albrandswaard	3172 AB			166
3	FPC De Rooyse Wissel (TBS)	Venray	5807 EA			174
4	FPC Dr. S. van Mesdag (TBS)	Groningen	9722 AZ			251
5	FPC Oldenkotte (TBS)	Berkelland	7157 CC		1-1-2015	134
6	FPC Oostvaarderskliniek (TBS)	Almere	1336 ZL			168
7	FPC Pompestichting	Nijmegen	6532 CN			283
8	FPC Van der Hoeven Kliniek (TBS)	Utrecht	3515 GB			175
9	FPC Veldzicht (TBS)	Hardenberg	7707 AT			220
10	FPK de Beuken, Trajectum (TBS)	Westerveld	8387 XN			117
11	FPK GGZ Drenthe Forensic Psychiatry (TBS)	Assen	9404 LB			11
12	FPK Inforsa, Arkin (TBS)	Amsterdam	1059 GL			31
13	FPK Woenselse Poort, (TBS) kliniek	Eindhoven	5626 ND			77
14	JJI De Heuvelrug Eikenstein	Zeist	3704 HB		1-2-2016	50
15	JJI Het Keerpunt	Eijsden-Margraten	6267 NL			68
16	JJI Lelystad	Lelystad	8239 AC	1-1-2014		98
17	JJI Stichting Het Poortje Jeugdinstellingen	Groningen	9746 TN	1-1-2014		40
18	JJI Teylingereind	Teylingen	2171 AL			236
19	PI Achterhoek: Ooyerhoek	Zutphen	7207 BJ			240
20	PI Almelo	Almelo	7601 PB			176
21	PI Almere	Almere	1332 BX			360
22	PI Alphen aan den Rijn	Alphen aan den Rijn	2404 BR	1-7-2007		1456
23	PI Amsterdam: Havenstraat	Amsterdam	1075 PR		1-10-2013	214
24	PI Amsterdam: locatie Tafelbergweg	Amsterdam	1105 BN		1-4-2016	96
25	PI Amsterdam: Over-Amstel	Amsterdam	1096 AN		1-7-2016	608
26	PI Arnhem: Locatie Arnhem-Zuid	Arnhem	6834 AA			277
27	PI Arnhem: Locatie de Berg	Arnhem	6812 BZ		1-1-2016	245
28	PI Breda: Koepel	Breda	4811 EE		1-1-2016	312
29	PI Doetinchem	Doetinchem	7009 CE		18-4-2014	118
30	PI Dordrecht	Dordrecht	3313 LC			442
31	PI Grave: De Marstal	Grave	5361 ME			510
32	PI Haaglanden: Zoetermeer	Zoetermeer	2712 XZ		1-7-2017	376
33	PI Haarlem	Haarlem	2031 WK		1-1-2016	393
34	PI Heerhugowaard: Alkmaar, Amerswiel en Zuyderbosch	Heerhugowaard	1704 SV			340
35	PI Hoogeveen: Grittenborgh	Hoogeveen	7908 BJ		3-10-2013	287
36	PI Krimpen aan den IJssel	Krimpen aan den IJssel	2920 CB			560
37	PI Leeuwarden	Leeuwarden	8936 AS			342
38	PI Lelystad	Lelystad	8233 HB			534
39	PI Limburg Zuid: de Geerhorst Sittard	Sittard-Geleen	6135 KN			323
40	PI Middelburg	Middelburg	4337 PE			204
41	PI Nieuwegein	Nieuwegein	3439 LC			477
42	PI Overmaze (PPC)	Maastricht	6222 NA		1-9-2013	72
43	PI Rotterdam: de Schie	Rotterdam	3041 JL			298
44	PI Rotterdam: Hoogvliet	Rotterdam	3194 DH			214
45	PI Rotterdam: Noordsingel	Rotterdam	3035 EM		1-10-2012	195
46	PI Scheveningen	Den Haag	2597 JW			240
47	PI Ter Apel	Vlagtwedde	9561 MC			434
48	PI Tilburg	Tilburg	5026 PA		1-1-2017	681
49	PI Utrecht: Nieuwersluis	Stichtse Vecht	3631 NK			243
50	PI Utrecht: Wolvenplein	Utrecht	3512 CK		1-6-2014	124
51	PI Veenhuizen: Esserheem	Noordenveld	9341 AP			48
52	PI Veenhuizen: Norgerhaven	Noordenveld	9341 BC			272
53	PI Vught	Vught	5263 NT			612
54	PI Westlinge (BBI)	Heerhugowaard	1701 BP		1-9-2016	271
55	PI Zaanstad	Zaanstad	1551 NG	6-9-2016		1040
56	PI Zuid Oost: Ter Peel	Horst aan de Maas	5977 NM	1-1-2014		286
57	PI Zuid Oost: Roermond en Te Roer	Roermond	6045 GL			303
58	PI Zwaag Hoorn: Zwaag	Hoorn	1689 AG			360
59	PI Zwolle	Zwolle	8013 NR			396
60	RJJI De Hartelborgt	Nissewaard	3202 LJ			105
61	RJJI De Hunnerberg	Nijmegen	6522 CH			80
62	RJJI Den Hey-Acker	Breda	4836 AB			76

Appendix 3: Map of Dutch prisons.



Red dots are Penitentiary Institutions; Yellow dots are TBS clinics; Blue dots are juvenile prisons.

## Appendix 4: Multiple linear regression assumptions.

To do a multiple linear regression the data must meet the following assumptions:

- (1) The relationship between the dependent variable and the independent variables must be linear;
- (2) The average value of the errors is zero;
- (3) The variance of the errors is constant;
- (4) The independent variables are not strongly correlated with each other.

### Assumption check 1: The relationship between the dependent variable and the independent variables must be linear

This can be checked by making a scatter plot of the dependent and independent variables.

Insert in stata: `twoway(scatter log_Verkoopprijs Woonopp) (lfit log_Verkoopprijs Woonopp)`

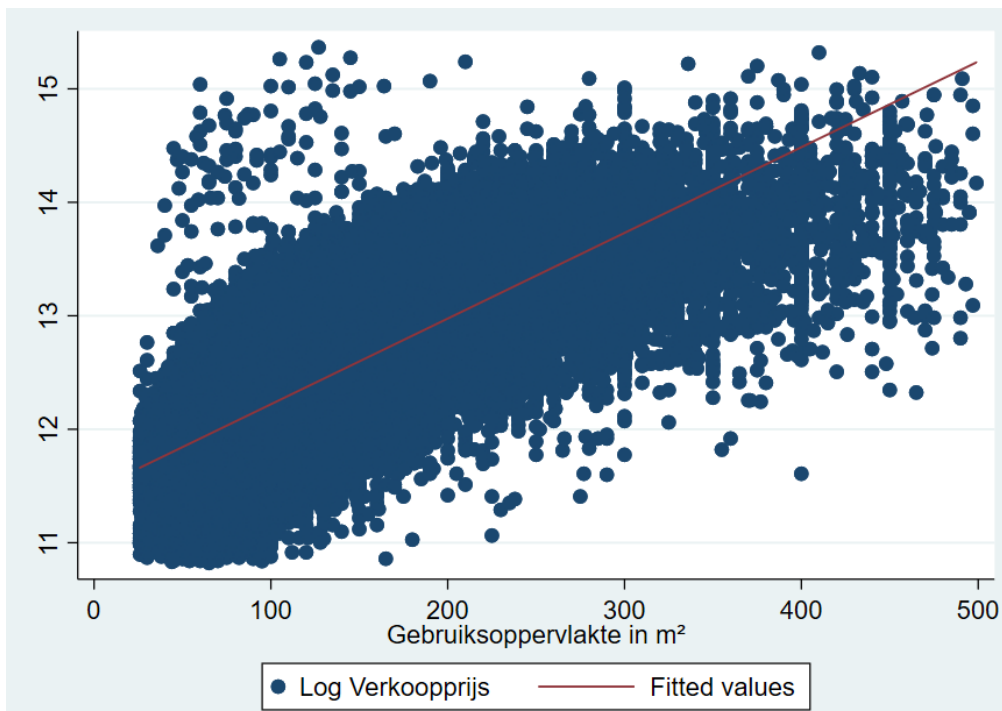


Figure 3

With this dataset, outliers of sales prices above € 5,000,000 have been removed from the dataset. The scatter plot shows that there is a linear relationship. However, sales prices above € 1,500,000 are also outliers. That is why these observations are also filtered out of the dataset (606 extra observations have been removed). Then the scatter plot looks like the one shown in the figure 4.

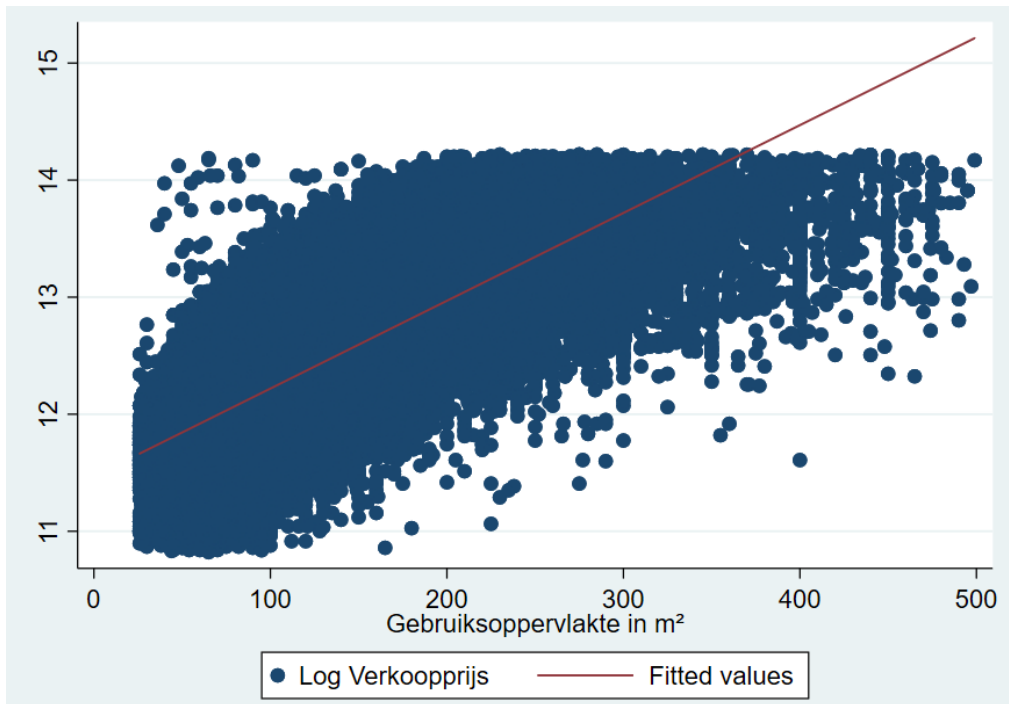


Figure 4

**Assumption check 2: The average value of the errors is zero**

The errors of the dependent variable should be normally distributed. That is why it has been transformed into the natural logarithm. As a result, as shown in the image below, the dependent variable is normally distributed.

Insert in stata: `hist log_Verkoopprijs, normal`

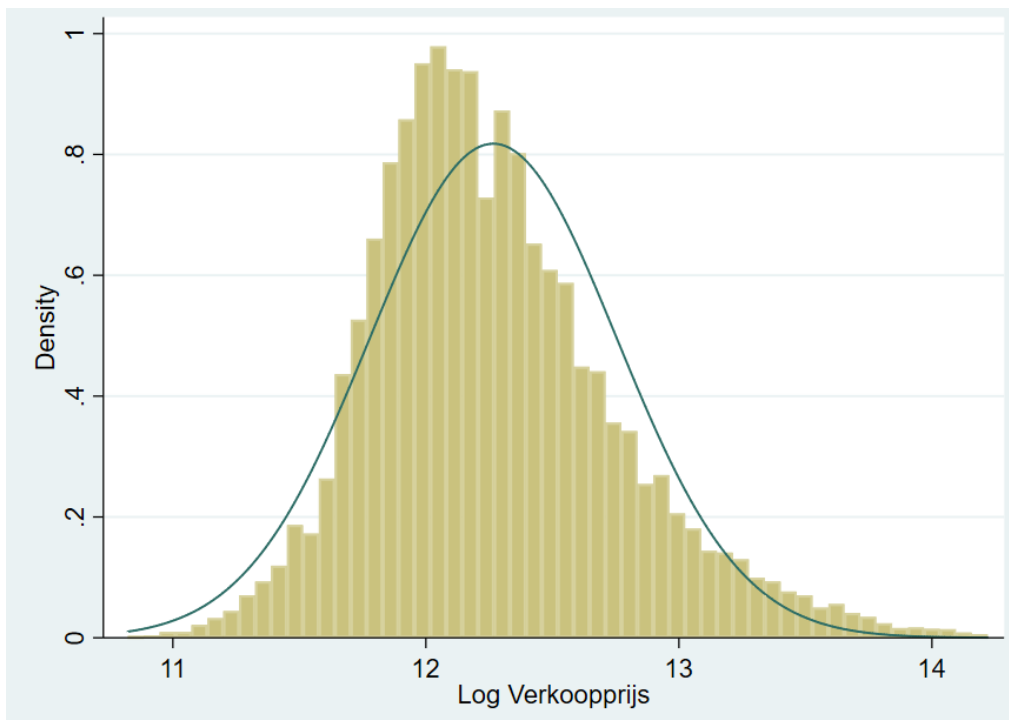


Figure 5

### **Assumption check 3: The variance of the errors is constant.**

To test for heteroskedasticity, the following should be entered into stata:

#### *Input*

```
. estat hettest
```

#### *Output*

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity

Ho: Constant variance

Variables: fitted values of log\_Verkoopprijs

chi2(1) = 6908.72

Prob > chi2 = 0.0000

This result means that the null hypothesis has been rejected. So there is heteroskedasticity. To correct for this 'robust' is added to the end of the regression input line. This corrects for robust standard errors.

```
reg log_Verkoopprijs i.PC4 i.Kwartaaldummy Gevangelis_300 TBS_300 Jeugd_300 ib6.Bouwperiode  
ib5.Soortwoning log_Woonopp Aantal_kamers Aantal_balkons Aantal_dakkapellen  
Aantal_dakterassen Aantal_bijkeukens Aantal_badkamers ib0.Soort_parkeerplek ib0.Tuinligging  
ib1.Tuinafwerking i.Staat_binnen i.Staat_buiten, robust
```

### **Assumption check 4: The independent variables are not strongly correlated with each other.**

In order to check whether the independent variables are not strongly correlated with each other, the Variance Inflation Factor (VIF) should not exceed 10. These values are requested by entering 'vif' in stata after running a regression.

The plot area (very strongly correlated with living space) has thus been removed from the regression.

Both the state of houses 'inside' and the state 'outside' shows a high VIF, this can be explained by the fact that people who carry out maintenance often do this inside and outside. As a result, the state 'outside' will not be included in the regression and the state 'inside' will.

Variable	VIF	1/VIF			
			7	1.78	0.563031
			8	1.87	0.533482
			9	1.82	0.549518
Kwartaaldu~y					
2	2.09	0.477531	Soortwoning		
3	2.11	0.473466	2	1.14	0.876025
4	2.15	0.464942	6	1.03	0.973994
5	2.13	0.468782	7	1.30	0.771902
6	2.14	0.467062	8	1.08	0.922378
7	2.06	0.484834	9	1.06	0.943649
8	2.12	0.470632	10	1.16	0.860967
9	2.13	0.470464	11	1.03	0.974183
10	2.15	0.464233	21	1.39	0.718561
11	2.12	0.471787	22	3.02	0.330728
12	2.12	0.471831	23	1.30	0.767040
13	2.10	0.477226	24	2.62	0.381956
14	2.11	0.473031	25	1.94	0.516401
15	1.99	0.503390	27	1.03	0.970635
16	1.73	0.578907	log_Woonopp	3.36	0.297390
17	1.67	0.598522	Aantal_kam~s	2.99	0.334873
18	1.80	0.554156	Aantal_bal~s	1.68	0.595022
19	1.79	0.560195	Aantal_d~len	1.12	0.892819
20	1.82	0.548680	Aantal_d~sen	1.11	0.902517
21	1.77	0.565639	Aantal_bij~s	1.15	0.868597
22	1.75	0.569966	Aantal_bad~s	1.14	0.880376
23	1.70	0.588004	Soort_park~k		
24	1.82	0.549168	2	1.12	0.892853
25	1.68	0.594320	3	1.12	0.892451
26	1.71	0.585156	4	1.29	0.778043
27	1.71	0.584010	6	1.03	0.968710
28	1.67	0.598421	8	1.13	0.888850
29	1.62	0.619148	Tuinligging		
30	1.70	0.589142	1	4.78	0.209050
31	1.60	0.625934	2	5.52	0.181172
32	1.89	0.530073	3	6.58	0.151982
33	1.44	0.695326	4	7.67	0.130382
34	1.67	0.597675	5	9.43	0.106087
35	1.70	0.588650	6	8.65	0.115645
36	1.84	0.543375	7	7.92	0.126321
37	1.78	0.561445	8	5.57	0.179679
38	1.93	0.516956	Tuinafwerk~g		
39	1.94	0.516566	2	1.47	0.682370
40	2.15	0.464111	3	19.93	0.050182
41	1.95	0.512705	4	9.26	0.107942
42	2.25	0.444329	5	11.13	0.089853
43	2.11	0.473012	Staat_binnen		
44	2.29	0.437134	2	1.48	0.676356
45	2.14	0.467338	3	6.52	0.153261
46	2.39	0.418648	4	3.18	0.314807
47	2.27	0.440754	5	28.01	0.035698
48	2.42	0.412653	6	15.14	0.066069
49	2.20	0.453926	7	83.46	0.011982
50	2.31	0.432224	8	16.52	0.060517
51	2.22	0.450976	9	43.84	0.022811
52	2.02	0.495787			
1.Afstandg~g	1.35	0.741722	Mean VIF	4.20	
3.VTNGeffect	1.36	0.734097			
Int_slui~300	1.36	0.736124			
Bouwperiode					
0	1.00	0.996678			
1	1.83	0.545090			
2	2.31	0.433639			
3	1.91	0.524832			
4	1.60	0.626751			
5	1.80	0.554187			
7	1.78	0.563031			

## Appendix 5: Results of model 1 at different distances.

### Model 1: Hedonic method

Target distance in meters	100	150	200	250	300	350	400
VARIABLES	Log(price)	Log(price)	Log(price)	Log(price)	Log(price)	Log(price)	Log(price)
"Within 'target' meters of"							
" " a penitentiary institution	-.0444417	-.0712184***	-.0637748***	-.043832***	-.0305971***	-.0237597***	-.0130777***
" " a TBS clinic	-.2135068***	-.0217126	-.0065578	-.0153388**	-.0173166***	-.0187842***	-.0171964***
" " a juvenile prison	omitted	-.1029528	-.106059***	-.1112839***	-.0602492***	-.0549685***	-.0356271***
Constant	9.120547***	9.120725***	9.120831***	9.120884***	9.120988***	9.121063***	9.121102***
Property characteristics	yes	yes	yes	yes	yes	yes	yes
Quarter dummies	yes	yes	yes	yes	yes	yes	yes
Postal code 4 areas	yes	yes	yes	yes	yes	yes	yes
Observations	566.618	566.618	566.618	566.618	566.618	566.618	566.618
R-squared	0.8706	0.8706	0.8706	0.8706	0.8706	0.8706	0.8706
RMSE	.17296	.17296	.17296	.17296	.17296	.17296	.17296

The dependent variable is the natural logarithm of the sales price. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

### Model 1: Hedonic method

Target distance in meters	450	500	550	600	650	700	750
VARIABLES	Log(price)	Log(price)	Log(price)	Log(price)	Log(price)	Log(price)	Log(price)
"Within 'target' meters of"							
" " a penitentiary institution	-.0102248***	-.0088511***	-.0029223	-.0017473	.001346	.005096***	.0048208***
" " a TBS clinic	-.0142085***	-.0140451***	-.010172***	-.0039197	-.0045372	-.0048711***	-.0079307***
" " a juvenile prison	-.0298554***	-.0112312	-.006634	.0100087	.0118914**	.0181356***	.0166304***
Constant	9.120893***	9.120843***	9.120695***	9.120598***	9.120497***	9.120398***	9.120448***
Property characteristics	yes	yes	yes	yes	yes	yes	yes
Quarter dummies	yes	yes	yes	yes	yes	yes	yes
Postal code 4 areas	yes	yes	yes	yes	yes	yes	yes
Observations	566.618	566.618	566.618	566.618	566.618	566.618	566.618
R-squared	0.8706	0.8706	0.8706	0.8706	0.8706	0.8706	0.8706
RMSE	.17296	.17297	.17297	.17297	.17297	.17297	.17297

The dependent variable is the natural logarithm of the sales price. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1



## Appendix 6: Stata do.file.

Stata do.file

**\*\*Part 1. Step one: cleaning the NVM file. The distance to the nearest prison is added using ArcGIS.**

**Dubble variables are deleted\*\***

```
assert obj_PC6Code ==obj_pc6_ID
drop obj_pc6_ID
drop pc6
drop bag_pc6nr
drop Postcode
drop BAG_PC6NR
assert obj_hid_HUISNUMMER ==Huisnummer
drop Huisnummer
drop hn
**Living area is two times incorporated**
drop obj_hid_M2
**Unusable variable**
drop obj_hid_HUISKLASSE
**Unusable variable**
drop obj_hid_KENMERKWONING
**Unusable variable**
drop obj_hid_NWC
```

**\*\*Unnecessary variables deleted\*\***

```
drop obj_afd_ID
drop obj_nvmreg_ID
drop Huisnumm_1
drop Huisletter
drop obj_hid_OORSPVRKOOPPR
drop obj_hid_DATUM_LAATSTVRKOOPPR
drop obj_hid_LAATSTVRKOOPPR
drop obj_hid_PROCVERSCHIL
drop obj_hid_NVMCIJFERS
drop obj_hid_INPANDIG
drop obj_hid_STATUS
drop OBJECTID
drop Identifica
drop Sleutel
```

**\*\*Renaming to get a better overview\*\***

```
rename obj_ID Verkoop_ID
label var Verkoop_ID "Verkoop_ID"
rename obj_prov_ID Provincie
label var Provincie "Provincie"
rename obj_PC6Code PC6no
label var PC6no "PC6numeriek"
rename obj_gem_ID Gemeentenummer
label var Gemeentenummer "Gemeente_nummer_ID"
rename obj_plaats_ID Plaatsnummer
label var Plaatsnummer "Plaatsnummer_ID"
rename obj_hid_POSTCODE PC6
label var PC6 "Postcode6"
rename pc4 PC4
```

label var PC4 "Postcode4"  
 rename obj\_hid\_HUISNUMMER Huisnummer  
 label var Huisnummer "Huisnummer\_ID"  
 rename obj\_hid\_HUISNUMMERTOEOVOEGING Huisnumtoe  
 label var Huisnumtoe "Huisnummertoevoeging"  
 rename obj\_hid\_PERCEEL Perceelopp  
 label var Perceelopp "Perceeloppervlak"  
 rename obj\_hid\_WOONOPP Woonopp  
 label var Woonopp "Gebruiksoppervlakte in m<sup>2</sup>"  
 rename obj\_hid\_INHOUD Inhoud  
 label var Inhoud "Inhoud m<sup>3</sup>"  
 rename obj\_hid\_CATEGORIE Woningcategorie  
 label var Woningcategorie "Woningcategorie"  
 rename obj\_hid\_SOORTWONING Soortwoning  
 label var Soortwoning "Soort woning"  
 rename obj\_hid\_TYPE Woningtype  
 label var Woningtype "Woningtype"  
 rename obj\_hid\_SOORTHUIS Soorthuis  
 label var Soorthuis "Soort huis"  
 rename obj\_hid\_SOORTAPP Soortapp  
 label var Soortapp "Soort appartement"  
 rename obj\_hid\_BWPER Bouwperiode  
 label var Bouwperiode "Bouwperiode"  
 rename obj\_hid\_TRANSACTIEPRIJS Verkoopprijs  
 label var Verkoopprijs "Verkoopprijs transactieprijs"  
 rename obj\_hid\_VERKOOPCOND Verkoopconditie  
 label var Verkoopconditie "Verkoopconditie"  
 rename obj\_hid\_DATUM\_AANMELDING Datum\_aanmelding  
 label var Datum\_aanmelding "Datum aanmelding"  
 rename obj\_hid\_DATUM\_AFMELDING Datum\_afmelding  
 label var Datum\_afmelding "Datum afmelding"  
 rename obj\_hid\_OPENPORTIEK Openportiek  
 label var Openportiek "Wel/geen open portiek 1/0"  
 rename obj\_hid\_LIFT Lift  
 label var Lift "Wel/geen lift 1/0"  
 rename obj\_hid\_KWALITEIT Kwaliteit\_appartement  
 label var Kwaliteit\_appartement "Kwaliteit appartement"  
 rename obj\_hid\_NVERDIEP Aantal\_verd  
 label var Aantal\_verd "Aantal verdiepingen"  
 rename obj\_hid\_NKAMERS Aantal\_kamers  
 label var Aantal\_kamer "Aantal kamers"  
 rename obj\_hid\_VTRAP Daktrap  
 label var Daktrap "Vaste trap naar dak"  
 rename obj\_hid\_ZOLDER Zolder  
 label var Zolder "Wel/geen zolder"  
 rename obj\_hid\_VLIER Vliering  
 label var Vliering "Wel/geen vliering"  
 rename obj\_hid\_PRAKTIJKR Praktijkruimte  
 label var Praktijkruimte "Soort praktijkruimte"  
 rename obj\_hid\_WOONKA Soort\_woonkamer  
 label var Soort\_woonkamer "Soort woonkamer"  
 rename obj\_hid\_NBALKON Aantal\_balkons  
 label var Aantal\_balkons "Aantal balkons"  
 rename obj\_hid\_NDAKKAP Aantal\_dakkapellen  
 label var Aantal\_dakkapellen "Aantal dakkapellen"

```

rename obj_hid_NDAKTERRAS Aantal_dakterassen
label var Aantal_dakterassen "Aantal dakterassen"
rename obj_hid_NKEUKEN Aantal_keukens
label var Aantal_keukens "Aantal keukens"
rename obj_hid_NBIJKEUK Aantal_bijkeukens
label var Aantal_bijkeukens "Aantal bijkeukens"
rename obj_hid_NBADK Aantal_badkamers
label var Aantal_badkamers "Aantal badkamers"
rename obj_hid_PARKEER Soort_parkeerplek
label var Soort_parkeerplek "Soort parkeerplek"
rename obj_hid_TUINAFW Tuinafwerking
label var Tuinafwerking "Tuinafwerking"
rename obj_hid_TUINLIG Tuinligging
label var Tuinligging "Tuinligging"
rename obj_hid_ONBI Staat_binnen
label var Staat_binnen "Staat van binnen onderhoud"
rename obj_hid_ONBU Staat_buiten
label var Staat_buiten "Staat van buiten onderhoud"
rename obj_hid_VERW Verwarming
label var Verwarming "Soort verwarming"
rename obj_hid_ISOL Isolatie
label var Isolatie "Aantal soorten isolatie"
rename obj_hid_LIGCENTR Centrale_ligging
label var Centrale_ligging "Ligging t.o.v. het centrum"
rename obj_hid_LIGMOOI Natuurligging
label var Natuurligging "Ligging t.o.v. natuur"
rename obj_hid_LIGDRUKW Wegligging
label var Wegligging "Ligging t.o.v. een weg"
rename obj_hid_ERFPACHT_TONEN Erfpacht
label var Erfpacht "Erfpacht"
rename obj_hid_PERMANENT Permanent
label var Permanent "Permanent bewoond"
rename year Jaar
label var Jaar "Jaar"
rename month Maand
label var Maand "Maand"
rename quarter Kwartaal
label var Kwartaal "Kwartaal"
rename clo_dis_gev Afstandgevangenis
label var Afstandgevangenis "Afstand tot dichtsbijzijnde gevangenis"
rename gevangenis_id Gevangenis
label var Gevangenis "Gevangenisnaam"
replace Gevangenis =0 if Gevangenis ==.

```

**\*\*Deleting missing variables\*\***

```

replace Perceelopp =. if Perceelopp == 0
replace Woonopp =. if Woonopp == 0
replace Woonopp =. if Woonopp == -1
replace Inhoud =. if Inhoud == 0
replace Inhoud =. if Inhoud == -1
replace Verkoopprijs =. if Verkoopprijs == -1
replace Openportiek =. if Openportiek == -1
replace Lift =. if Lift == -1
replace Lift =. if Woningcategorie == 1
replace Kwaliteit_appartement =. if Kwaliteit_appartement == -1

```

**\*\*Renaming categories\*\***

**\*\*Renaming categories: house category\*\***

label define Woningcategorie\_lbl 1"Woonhuis" 2"Appartement" 3"Bouwgrond" 4"Garagebox"

label values Woningcategorie Woningcategorie\_lbl

tab Woningcategorie

**\*\*Deleting category 'Land' and 'Garage box' (not relevant)\*\***

drop if Woningcategorie == 3 | Woningcategorie == 4

tab Woningcategorie

**\*\*house type\*\***

label define Soortwoning\_lbl -1"Geen woning" 0"Ander soort huis" 1"Stacaravan" 2"Eenvoudig"  
3"Woonboot" 4"Recreatiewoning" 5"Eengezins" 6"Grachtenpand" 7"Herenhuis" 8"Woonboerderij"  
9"Bungalow" 10"Villa" 11"Landhuis" 12"Landgoed" 20"Ander soort appartement"  
21"Benedenwoning" 22"Bovenwoning" 23" Maisonnette" 24"Portieflat" 25"Galerijflat"  
26"Verzorgingsflat" 27"Beneden- en bovenwoning (samen)"

label values Soortwoning Soortwoning\_lbl

drop if Soortwoning == -1

tab Soortwoning

**\*\*Renaming building period\*\***

label define Bouwperiode\_lbl -1"Geen bouwjaar mogelijk" 0"Onbekend" 1"1500-1905" 2"1906-1930"  
3"1931-1944" 4"1945-1959" 5"1960-1970" 6"1971-1980" 7"1981-1990" 8"1991-2000" 9" ≥ 2001"

label values Bouwperiode Bouwperiode\_lbl

tab Bouwperiode

**\*\*Renaming sale condition\*\***

label define Verkoopconditie\_lbl -1"Geen woning" 0"Niet van toepassing / alleen huurwoning"  
1"Kosten koper" 2"Vrij op naam" 3"Geveild" 4"Verhuurd per maand" 5"Verhuurd per jaar"  
6"Ingetrokken"

label values Verkoopconditie Verkoopconditie\_lbl

tab Verkoopconditie

**\*\*Renaming category Openportiek\*\***

label define Openportiek\_lbl 0"Geen open portiek" 1"Open portiek"

label values Openportiek Openportiek\_lbl

tab Openportiek

**\*\*Renaming category Lift\*\***

label define Lift\_lbl 0"Geen lift" 1"Lift"

label values Lift Lift\_lbl

tab Lift

**\*\*Renaming category Kwaliteit\_appartement\*\***

label define Kwaliteit\_appartement\_lbl 0"Eenvoudig" 1"Normaal" 2"Luxe"

label values Kwaliteit\_appartement Kwaliteit\_appartement\_lbl

tab Kwaliteit\_appartement

**\*\*Renaming category Zolder\*\***

label define Zolder\_lbl 0"Geen zolder" 1"Zolder"

label values Zolder Zolder\_lbl

tab Zolder

**\*\*Renaming category Vliering\*\***

label define Vliering\_lbl 0"Geen vliering" 1"Vliering"

label values Vliering Vliering\_lbl

tab Vliering

**\*\*Renaming category Praktijkruimte\*\***

label define Praktijkruimte\_lbl 0"Niet mogelijk" 1"Mogelijk" 2"Inpandig aanwezig" 3"Aangebouwd  
aanwezig" 4"Vrijstaand aanwezig"

label values Praktijkruimte Praktijkruimte\_lbl

tab Praktijkruimte

**\*\*Renaming category Soort\_woonkamer\*\***

label define Soort\_woonkamer\_lbl 0"Overig" 1"L-kamer" 2"T-kamer" 3"Z-kamer of U-kamer"  
4"Doorzonkamer" 5"Kamer en suite"

label values Soort\_woonkamer Soort\_woonkamer\_lbl

tab Soort\_woonkamer

**\*\*Renaming category Soort\_parkeerplek\*\***

label define Soort\_parkeerplek\_lbl 0"Geen" 2"Parkeerplaats" 3"Carport zonder garage" 4"Garage  
zonder carport" 6"Garage en carport" 8"Garage (meer auto's)"

label values Soort\_parkeerplek Soort\_parkeerplek\_lbl

tab Soort\_parkeerplek

**\*\*Renaming category Tuinafwerking\*\***

label define Tuinafwerking\_lbl 1"Geen tuin" 2"Aan te leggen of verwaarloosd" 3"Normaal" 4"Fraai  
aangelegd" 5"Verzorgd"

label values Tuinafwerking Tuinafwerking\_lbl

tab Tuinafwerking

replace Tuinafwerking = 1 if Tuinligging == 0

tab Tuinafwerking

**\*\*Renaming category Tuinligging\*\***

label define Tuinligging\_lbl 0"Geen tuin" 1"Noord" 2"Noord-Oost" 3"Oost" 4"Zuid-Oost" 5"Zuid"  
6"Zuid-West" 7"West" 8"Noord-West"

label values Tuinligging Tuinligging\_lbl

tab Tuinligging

**\*\*Renaming category Staat\_binnen\*\***

label define Staat\_binnen\_lbl 1"Slecht" 2"Matig tot slecht" 3"Matig" 4"Matig tot redelijk" 5"Redelijk"  
6"Redelijk tot goed" 7"Goed" 8"Goed tot uitstekend" 9"Uitstekend"

label values Staat\_binnen Staat\_binnen\_lbl

tab Staat\_binnen

**\*\*Renaming category Staat\_buiten\*\***

label define Staat\_buiten\_lbl 1"Slecht" 2"Matig tot slecht" 3"Matig" 4"Matig tot redelijk" 5"Redelijk"  
6"Redelijk tot goed" 7"Goed" 8"Goed tot uitstekend" 9"Uitstekend"

label values Staat\_buiten Staat\_buiten\_lbl

tab Staat\_buiten

**\*\*Renaming category Verwarming\*\***

label define Verwarming\_lbl 0"Geen verwarming" 1"Gaskachel of kolenkachel" 2"CV-ketel, blok-,  
stadsverwarming, moederhaard of hete lucht" 3"Airconditioning of zonnecollectoren"

label values Verwarming Verwarming\_lbl

tab Verwarming

**\*\*Renaming category Isolatie\*\***

label define Isolatie\_lbl 0"Geen isolatie" 1"Eén soort isolatie" 2"Twee soorten isolatie" 3"Drie soorten  
isolatie" 4"Vier soorten isolatie" 5"Vijf of meer/volledig geïsoleerd"

label values Isolatie Isolatie\_lbl

tab Isolatie

**\*\*Renaming category Centrale\_ligging\*\***

label define Centrale\_ligging\_lbl 0"Buiten bebouwde kom" 1"Niet opgegeven" 2"In woonwijk" 3"In  
centrum"

label values Centrale\_ligging Centrale\_ligging\_lbl

replace Centrale\_ligging = . if Centrale\_ligging == 1

tab Centrale\_ligging

**\*\*Renaming category Natuurligging\*\***

label define Natuurligging\_lbl 0"Niet opgegeven" 1"Aan bosrand" 2"Aan water" 3"Aan park" 4"Vrij  
uitzicht"

label values Natuurligging Natuurligging\_lbl

replace Natuurligging = . if Natuurligging == 0

tab Natuurligging

```

**Renaming category Wegligging**
label define Wegligging_lbl 0"Aan rustige weg" 1"Niet opgegeven" 2"Aan drukke weg"
label values Wegligging Wegligging_lbl
replace Wegligging =. if Wegligging == 1
tab Wegligging
**Renaming category Erfpacht**
label define Erfpacht_lbl -1"Onbekend" 0"Geen erfpacht" 1"Vast" 2"Variabel"
label values Erfpacht Erfpacht_lbl
replace Erfpacht =. if Erfpacht == -1
tab Erfpacht
**Renaming category Permanent**
label define Permanent_lbl 0"Niet permanent bewoond" 1"Wel permanent bewoond"
label values Permanent Permanent_lbl
tab Permanent

**Filter distortions, deleting impossible ranges and normalize**
drop if Verkoopprijs ==.
**Deleting Stacaravan**
drop if Soortwoning == 1
**Deleting Woonboot**
drop if Soortwoning == 3
**Deleting Recreatiewoning**
drop if Soortwoning == 4
**Deleting Landgoed**
drop if Soortwoning == 12
**Deleting Verzorgingsflat**
drop if Soortwoning == 26
tab Soortwoning

**Normalize**
summarize Verkoopprijs
drop if Verkoopprijs <= 50000
drop if Verkoopprijs >= 1500000
summarize Verkoopprijs
gen log_Verkoopprijs = ln(Verkoopprijs)
label var log_Verkoopprijs "Log Verkoopprijs"

**Normalize**
drop if Woonopp <= 25
drop if Woonopp >= 500
gen log_Woonopp = ln(Woonopp)
label var log_Woonopp "Log Woonoppervlak"

**drop if Perceelopp >=10000**
**drop if Perceelopp <=25**
**gen log_Perceelopp = ln(Perceelopp)**
**Don't add this variable because multicollinearity with living area**

**Normalize**
drop if Aantal_kamers ==0
drop if Aantal_kamers >=15

**New variable for distance to nearest prison**
destring Afstandgevangenis, generate (Afstandgevangenis_n)

```

**\*\*Distance groups\*\***

```
gen Afstandgevangenis_g = 1 if Afstandgevangenis_n < 300  
replace Afstandgevangenis_g = 7 if Afstandgevangenis_n >= 300
```

```
label define Afstandgevangenis_g_lbl 1 "<300 meter" 7 ">=300 meter"  
label values Afstandgevangenis_g Afstandgevangenis_g_lbl  
tab Afstandgevangenis_g
```

**\*\*Quarter\_dummy\*\***

```
gen Kwartaaldummy = 1 if Jaar == 2005 & Kwartaal == 1  
replace Kwartaaldummy = 2 if Jaar == 2005 & Kwartaal == 2  
replace Kwartaaldummy = 3 if Jaar == 2005 & Kwartaal == 3  
replace Kwartaaldummy = 4 if Jaar == 2005 & Kwartaal == 4  
replace Kwartaaldummy = 5 if Jaar == 2006 & Kwartaal == 1  
replace Kwartaaldummy = 6 if Jaar == 2006 & Kwartaal == 2  
replace Kwartaaldummy = 7 if Jaar == 2006 & Kwartaal == 3  
replace Kwartaaldummy = 8 if Jaar == 2006 & Kwartaal == 4  
replace Kwartaaldummy = 9 if Jaar == 2007 & Kwartaal == 1  
replace Kwartaaldummy = 10 if Jaar == 2007 & Kwartaal == 2  
replace Kwartaaldummy = 11 if Jaar == 2007 & Kwartaal == 3  
replace Kwartaaldummy = 12 if Jaar == 2007 & Kwartaal == 4  
replace Kwartaaldummy = 13 if Jaar == 2008 & Kwartaal == 1  
replace Kwartaaldummy = 14 if Jaar == 2008 & Kwartaal == 2  
replace Kwartaaldummy = 15 if Jaar == 2008 & Kwartaal == 3  
replace Kwartaaldummy = 16 if Jaar == 2008 & Kwartaal == 4  
replace Kwartaaldummy = 17 if Jaar == 2009 & Kwartaal == 1  
replace Kwartaaldummy = 18 if Jaar == 2009 & Kwartaal == 2  
replace Kwartaaldummy = 19 if Jaar == 2009 & Kwartaal == 3  
replace Kwartaaldummy = 20 if Jaar == 2009 & Kwartaal == 4  
replace Kwartaaldummy = 21 if Jaar == 2010 & Kwartaal == 1  
replace Kwartaaldummy = 22 if Jaar == 2010 & Kwartaal == 2  
replace Kwartaaldummy = 23 if Jaar == 2010 & Kwartaal == 3  
replace Kwartaaldummy = 24 if Jaar == 2010 & Kwartaal == 4  
replace Kwartaaldummy = 25 if Jaar == 2011 & Kwartaal == 1  
replace Kwartaaldummy = 26 if Jaar == 2011 & Kwartaal == 2  
replace Kwartaaldummy = 27 if Jaar == 2011 & Kwartaal == 3  
replace Kwartaaldummy = 28 if Jaar == 2011 & Kwartaal == 4  
replace Kwartaaldummy = 29 if Jaar == 2012 & Kwartaal == 1  
replace Kwartaaldummy = 30 if Jaar == 2012 & Kwartaal == 2  
replace Kwartaaldummy = 31 if Jaar == 2012 & Kwartaal == 3  
replace Kwartaaldummy = 32 if Jaar == 2012 & Kwartaal == 4  
replace Kwartaaldummy = 33 if Jaar == 2013 & Kwartaal == 1  
replace Kwartaaldummy = 34 if Jaar == 2013 & Kwartaal == 2  
replace Kwartaaldummy = 35 if Jaar == 2013 & Kwartaal == 3  
replace Kwartaaldummy = 36 if Jaar == 2013 & Kwartaal == 4  
replace Kwartaaldummy = 37 if Jaar == 2014 & Kwartaal == 1  
replace Kwartaaldummy = 38 if Jaar == 2014 & Kwartaal == 2  
replace Kwartaaldummy = 39 if Jaar == 2014 & Kwartaal == 3  
replace Kwartaaldummy = 40 if Jaar == 2014 & Kwartaal == 4  
replace Kwartaaldummy = 41 if Jaar == 2015 & Kwartaal == 1  
replace Kwartaaldummy = 42 if Jaar == 2015 & Kwartaal == 2  
replace Kwartaaldummy = 43 if Jaar == 2015 & Kwartaal == 3  
replace Kwartaaldummy = 44 if Jaar == 2015 & Kwartaal == 4  
replace Kwartaaldummy = 45 if Jaar == 2016 & Kwartaal == 1  
replace Kwartaaldummy = 46 if Jaar == 2016 & Kwartaal == 2
```

```

replace Kwartaaldummy = 47 if Jaar == 2016 & Kwartaal == 3
replace Kwartaaldummy = 48 if Jaar == 2016 & Kwartaal == 4
replace Kwartaaldummy = 49 if Jaar == 2017 & Kwartaal == 1
replace Kwartaaldummy = 50 if Jaar == 2017 & Kwartaal == 2
replace Kwartaaldummy = 51 if Jaar == 2017 & Kwartaal == 3
replace Kwartaaldummy = 52 if Jaar == 2017 & Kwartaal == 4
label define Kwartaaldummy_lbl 1"2005Q1" 2"2005Q2" 3"2005Q3" 4"2005Q4" 5"2006Q1"
6"2006Q2" 7"2006Q3" 8"2006Q4" 9"2007Q1" 10"2007Q2" 11"2007Q3" 12"2007Q4" 13"2008Q1"
14"2008Q2" 15"2008Q3" 16"2008Q4" 17"2009Q1" 18"2009Q2" 19"2009Q3" 20"2009Q4"
21"2010Q1" 22"2010Q2" 23"2010Q3" 24"2010Q4" 25"2011Q1" 26"2011Q2" 27"2011Q3"
28"2011Q4" 29"2012Q1" 30"2012Q2" 31"2012Q3" 32"2012Q4" 33"2013Q1" 34"2013Q2"
35"2013Q3" 36"2013Q4" 37"2014Q1" 38"2014Q2" 39"2014Q3" 40"2014Q4" 41"2015Q1"
42"2015Q2" 43"2015Q3" 44"2015Q4" 45"2016Q1" 46"2016Q2" 47"2016Q3" 48"2016Q4"
49"2017Q1" 50"2017Q2" 51"2017Q3" 52"2017Q4"
label values Kwartaaldummy Kwartaaldummy_lbl
tab Kwartaaldummy

```

### \*\*Prison capacity\*\*

```

gen Capgev = 0
label var Capgev "Gevangenis capaciteit"
replace Capgev = 58 if Gevangenis == 1
replace Capgev = 166 if Gevangenis == 2
replace Capgev = 174 if Gevangenis == 3
replace Capgev = 251 if Gevangenis == 4
replace Capgev = 134 if Gevangenis == 5
replace Capgev = 168 if Gevangenis == 6
replace Capgev = 283 if Gevangenis == 7
replace Capgev = 175 if Gevangenis == 8
replace Capgev = 220 if Gevangenis == 9
replace Capgev = 117 if Gevangenis == 10
replace Capgev = 11 if Gevangenis == 11
replace Capgev = 31 if Gevangenis == 12
replace Capgev = 77 if Gevangenis == 13
replace Capgev = 50 if Gevangenis == 14
replace Capgev = 68 if Gevangenis == 15
replace Capgev = 98 if Gevangenis == 16
replace Capgev = 40 if Gevangenis == 17
replace Capgev = 236 if Gevangenis == 18
replace Capgev = 240 if Gevangenis == 19
replace Capgev = 176 if Gevangenis == 20
replace Capgev = 360 if Gevangenis == 21
replace Capgev = 1456 if Gevangenis == 22
replace Capgev = 214 if Gevangenis == 23
replace Capgev = 96 if Gevangenis == 24
replace Capgev = 608 if Gevangenis == 25
replace Capgev = 277 if Gevangenis == 26
replace Capgev = 245 if Gevangenis == 27
replace Capgev = 312 if Gevangenis == 28
replace Capgev = 118 if Gevangenis == 29
replace Capgev = 442 if Gevangenis == 30
replace Capgev = 510 if Gevangenis == 31
replace Capgev = 376 if Gevangenis == 32
replace Capgev = 393 if Gevangenis == 33
replace Capgev = 340 if Gevangenis == 34
replace Capgev = 287 if Gevangenis == 35

```



```

replace Capgev = 560 if Gevangenissen == 36
replace Capgev = 342 if Gevangenissen == 37
replace Capgev = 534 if Gevangenissen == 38
replace Capgev = 323 if Gevangenissen == 39
replace Capgev = 204 if Gevangenissen == 40
replace Capgev = 477 if Gevangenissen == 41
replace Capgev = 72 if Gevangenissen == 42
replace Capgev = 298 if Gevangenissen == 43
replace Capgev = 214 if Gevangenissen == 44
replace Capgev = 195 if Gevangenissen == 45
replace Capgev = 240 if Gevangenissen == 46
replace Capgev = 434 if Gevangenissen == 47
replace Capgev = 681 if Gevangenissen == 48
replace Capgev = 243 if Gevangenissen == 49
replace Capgev = 124 if Gevangenissen == 50
replace Capgev = 48 if Gevangenissen == 51
replace Capgev = 272 if Gevangenissen == 52
replace Capgev = 612 if Gevangenissen == 53
replace Capgev = 271 if Gevangenissen == 54
replace Capgev = 1040 if Gevangenissen == 55
replace Capgev = 286 if Gevangenissen == 56
replace Capgev = 303 if Gevangenissen == 57
replace Capgev = 360 if Gevangenissen == 58
replace Capgev = 396 if Gevangenissen == 59
replace Capgev = 105 if Gevangenissen == 60
replace Capgev = 80 if Gevangenissen == 61
replace Capgev = 76 if Gevangenissen == 62
replace Capgev = 0 if Afstandgevangenissen_n >= 750

```

**\*\*Adding prison type\*\***

```

gen Soortgev= 1
label var Soortgev "Soort gevangenissen"

```

```

replace Soortgev = 2 if Gevangenissen == 1 | Gevangenissen == 2 | Gevangenissen == 3 | Gevangenissen == 4 |
Gevangenissen == 5 | Gevangenissen == 6 | Gevangenissen == 7 | Gevangenissen == 8 | Gevangenissen == 9 | Gevangenissen
== 10 | Gevangenissen == 11 | Gevangenissen == 12 | Gevangenissen == 13
replace Soortgev = 3 if Gevangenissen == 14 | Gevangenissen == 15 | Gevangenissen == 16 | Gevangenissen == 17 |
Gevangenissen == 18 | Gevangenissen == 60 | Gevangenissen == 61 | Gevangenissen == 62

```

```

label define Soortgev_lbl 1"Reguliere gevangenissen" 2"TBS" 3"Jeugd gevangenissen"
label values Soortgev Soortgev_lbl
tab Soortgev

```

**\*\*Part 2: add part two to part one to get the results of model 1.\*\***

**\*\*Before-, during- and after prison.\*\***

```
gen VTNGeffect = 2
label var VTNGeffect "Gevangenis"
replace VTNGeffect = 1 if Gevangenis == 16 & Kwartaaldummy <= 36
replace VTNGeffect = 1 if Gevangenis == 17 & Kwartaaldummy <= 36
replace VTNGeffect = 1 if Gevangenis == 22 & Kwartaaldummy <= 10
replace VTNGeffect = 1 if Gevangenis == 55 & Kwartaaldummy <= 36
replace VTNGeffect = 1 if Gevangenis == 56 & Kwartaaldummy <= 46
replace VTNGeffect = 3 if Gevangenis == 1 & Kwartaaldummy >= 42
replace VTNGeffect = 3 if Gevangenis == 5 & Kwartaaldummy >= 41
replace VTNGeffect = 3 if Gevangenis == 14 & Kwartaaldummy >= 46
replace VTNGeffect = 3 if Gevangenis == 23 & Kwartaaldummy >= 36
replace VTNGeffect = 3 if Gevangenis == 24 & Kwartaaldummy >= 46
replace VTNGeffect = 3 if Gevangenis == 25 & Kwartaaldummy >= 47
replace VTNGeffect = 3 if Gevangenis == 27 & Kwartaaldummy >= 45
replace VTNGeffect = 3 if Gevangenis == 28 & Kwartaaldummy >= 45
replace VTNGeffect = 3 if Gevangenis == 29 & Kwartaaldummy >= 39
replace VTNGeffect = 3 if Gevangenis == 32 & Kwartaaldummy >= 51
replace VTNGeffect = 3 if Gevangenis == 33 & Kwartaaldummy >= 45
replace VTNGeffect = 3 if Gevangenis == 35 & Kwartaaldummy >= 36
replace VTNGeffect = 3 if Gevangenis == 42 & Kwartaaldummy >= 36
replace VTNGeffect = 3 if Gevangenis == 45 & Kwartaaldummy >= 32
replace VTNGeffect = 3 if Gevangenis == 48 & Kwartaaldummy >= 49
replace VTNGeffect = 3 if Gevangenis == 50 & Kwartaaldummy >= 39
replace VTNGeffect = 3 if Gevangenis == 54 & Kwartaaldummy >= 48

label define VTNGeffect_lbl 1"Voor opening" 2"Tijdens exploitatie" 3"Na sluiting"

label values VTNGeffect VTNGeffect_lbl
tab VTNGeffect

drop if VTNGeffect == 1
drop if VTNGeffect == 3
```

**\*\*Prison\*<300\*\***

```
gen Gevangenis_300 = 0
label var Gevangenis_300 "Gevangenis binnen 300 meter"
replace Gevangenis_300 = 1 if Soortgev == 1 & Afstandgevangenis_g == 1
```

**\*\*TBS\*<300\*\***

```
gen TBS_300 = 0
label var TBS_300 "TBS-kliniek binnen 300 meter"
replace TBS_300 = 1 if Soortgev == 2 & Afstandgevangenis_g == 1
```

**\*\*Juvenile prison\*<300\*\***

```
gen Jeugd_300 = 0
label var Jeugd_300 "Jeugd gevangenis binnen 300 meter"
replace Jeugd_300 = 1 if Soortgev == 3 & Afstandgevangenis_g == 1
```

**\*\*More variables possible\*\***

```
set matsize 10000
```

### **\*\*Regression\*\***

```
reg Verkoopprijs i.PC4 i.Kwartaaldummy Gevangenis_300 TBS_300 Jeugd_300 ib6.Bouwperiode  
ib5.Soortwoning log_Woonopp Aantal_kamers Aantal_balkons Aantal_dakkeppen  
Aantal_dakterassen Aantal_bijkeukens Aantal_badkamers ib0.Soort_parkeerplek ib0.Tuinligging  
ib1.Tuinafwerking i.Staat_binnen i.Staat_buiten
```

### **\*\*Regression with log\_sale Model 1.1\*\***

```
reg log_Verkoopprijs Gevangenis_300 TBS_300 Jeugd_300 ib6.Bouwperiode ib5.Soortwoning  
log_Woonopp Aantal_kamers Aantal_balkons Aantal_dakkeppen Aantal_dakterassen  
Aantal_bijkeukens Aantal_badkamers ib0.Soort_parkeerplek ib0.Tuinligging ib1.Tuinafwerking  
i.Staat_binnen
```

### **\*\*Regression with log\_sale Model 1.2\*\***

```
reg log_Verkoopprijs i.Kwartaaldummy Gevangenis_300 TBS_300 Jeugd_300 ib6.Bouwperiode  
ib5.Soortwoning log_Woonopp Aantal_kamers Aantal_balkons Aantal_dakkeppen  
Aantal_dakterassen Aantal_bijkeukens Aantal_badkamers ib0.Soort_parkeerplek ib0.Tuinligging  
ib1.Tuinafwerking i.Staat_binnen
```

### **\*\*Regression with log\_sale Model 1.3\*\***

```
reg log_Verkoopprijs i.PC4 i.Kwartaaldummy Gevangenis_300 TBS_300 Jeugd_300 ib6.Bouwperiode  
ib5.Soortwoning log_Woonopp Aantal_kamers Aantal_balkons Aantal_dakkeppen  
Aantal_dakterassen Aantal_bijkeukens Aantal_badkamers ib0.Soort_parkeerplek ib0.Tuinligging  
ib1.Tuinafwerking i.Staat_binnen
```

### **\*\*Part 3. add part three to part one to get the results of model 2.\*\***

### **\*\*Before opening-, during exploitation-, and after closure of a prison.\*\***

```
gen VTNGeffect = 2  
label var VTNGeffect "Gevangenis"  
replace VTNGeffect = 1 if Gevangenis == 16 & Kwartaaldummy <= 36  
replace VTNGeffect = 1 if Gevangenis == 17 & Kwartaaldummy <= 36  
replace VTNGeffect = 1 if Gevangenis == 22 & Kwartaaldummy <= 10  
replace VTNGeffect = 1 if Gevangenis == 55 & Kwartaaldummy <= 36  
replace VTNGeffect = 1 if Gevangenis == 56 & Kwartaaldummy <= 46  
replace VTNGeffect = 3 if Gevangenis == 1 & Kwartaaldummy >= 42  
replace VTNGeffect = 3 if Gevangenis == 5 & Kwartaaldummy >= 41  
replace VTNGeffect = 3 if Gevangenis == 14 & Kwartaaldummy >= 46  
replace VTNGeffect = 3 if Gevangenis == 23 & Kwartaaldummy >= 36  
replace VTNGeffect = 3 if Gevangenis == 24 & Kwartaaldummy >= 46  
replace VTNGeffect = 3 if Gevangenis == 25 & Kwartaaldummy >= 47  
replace VTNGeffect = 3 if Gevangenis == 27 & Kwartaaldummy >= 45  
replace VTNGeffect = 3 if Gevangenis == 28 & Kwartaaldummy >= 45  
replace VTNGeffect = 3 if Gevangenis == 29 & Kwartaaldummy >= 39  
replace VTNGeffect = 3 if Gevangenis == 32 & Kwartaaldummy >= 51  
replace VTNGeffect = 3 if Gevangenis == 33 & Kwartaaldummy >= 45  
replace VTNGeffect = 3 if Gevangenis == 35 & Kwartaaldummy >= 36  
replace VTNGeffect = 3 if Gevangenis == 42 & Kwartaaldummy >= 36  
replace VTNGeffect = 3 if Gevangenis == 45 & Kwartaaldummy >= 32  
replace VTNGeffect = 3 if Gevangenis == 48 & Kwartaaldummy >= 49  
replace VTNGeffect = 3 if Gevangenis == 50 & Kwartaaldummy >= 39  
replace VTNGeffect = 3 if Gevangenis == 54 & Kwartaaldummy >= 48
```

```
label define VTNGeffect_lbl 1"Voor opening" 2"Tijdens exploitatie" 3"Na sluiting"
```

```
label values VTNGeffect VTNGeffect_ibl  
tab VTNGeffect
```

```
drop if VTNGeffect == 1
```

```
**Focus on penitentiary prisons**
```

```
label define Soortgev_ibl 1"Reguliere gevangenis" 2"TBS" 3"Jeugd gevangenis"  
label values Soortgev Soortgev_ibl  
tab Soortgev  
drop if Soortgev == 2  
drop if Soortgev == 3  
tab Soortgev
```

```
**Drop PI Alphen aan den Rijn only 1 observation as interaction**
```

```
**Drop PI Amsterdam: Over-Amstel only 12 observations as interaction**
```

```
**Drop PI Overmaze PPC only 13 observations as interaction**
```

```
drop if Gevangenis == 22  
drop if Gevangenis == 25  
drop if Gevangenis == 42
```

```
**Interaction closing**
```

```
**Interaction_closing_Geffect*<300**
```

```
gen Int_sluit_300 = 0  
label var Int_sluit_300 "Gevangenis binnen 300 meter na sluiting"  
replace Int_sluit_300 = 1 if VTNGeffect == 3 & Afstandgevangenis_g == 1
```

```
**More variables allowed**
```

```
set matsize 10000
```

```
**Regression**
```

```
reg Verkoopprijs i.PC4 i.Kwartaaldummy ib7.Afstandgevangenis_g ib2.VTNGeffect Int_sluit_300  
ib6.Bouwperiode ib5.Soortwoning log_Woonopp Aantal_kamers Aantal_balkons Aantal_dakkapellen  
Aantal_dakterassen Aantal_bijkeukens Aantal_badkamers ib0.Soort_parkeerplek ib0.Tuinligging  
ib1.Tuinafwerking i.Staat_binnen i.Staat_buiten
```

```
**Regression with log_price**
```

```
reg log_Verkoopprijs i.PC4 i.Kwartaaldummy ib7.Afstandgevangenis_g ib2.VTNGeffect Int_sluit_300  
ib6.Bouwperiode ib5.Soortwoning log_Woonopp Aantal_kamers Aantal_balkons Aantal_dakkapellen  
Aantal_dakterassen Aantal_bijkeukens Aantal_badkamers ib0.Soort_parkeerplek ib0.Tuinligging  
ib1.Tuinafwerking i.Staat_binnen
```

## Appendix 7: Regression results of model 1.

### Model 1.

log_Verkoopprijs	Coef.	St.Err.	t	P>  t	[95% Conf	Interval]	Sig
PC4							
1012.PC4	-0.093	0.008	-10.94	0.000	-0.109	-0.076	***
1013.PC4	-0.107	0.007	-15.28	0.000	-0.121	-0.093	***
1014.PC4	-0.225	0.066	-3.44	0.001	-0.354	-0.097	***
1015.PC4	0.040	0.007	5.73	0.000	0.027	0.054	***
1016.PC4	0.085	0.007	11.52	0.000	0.070	0.099	***
1017.PC4	0.086	0.007	12.36	0.000	0.072	0.099	***
1018.PC4	-0.056	0.006	-8.72	0.000	-0.069	-0.044	***
1019.PC4	-0.180	0.007	-27.31	0.000	-0.193	-0.167	***
1021.PC4	-0.413	0.008	-49.39	0.000	-0.429	-0.396	***
1022.PC4	-0.376	0.014	-26.42	0.000	-0.404	-0.348	***
1023.PC4	-0.206	0.010	-20.66	0.000	-0.226	-0.187	***
1024.PC4	-0.524	0.007	-70.03	0.000	-0.539	-0.510	***
1025.PC4	-0.487	0.007	-69.73	0.000	-0.501	-0.474	***
1026.PC4	0.146	0.025	5.83	0.000	0.097	0.195	***
1027.PC4	-0.092	0.033	-2.78	0.005	-0.157	-0.027	***
1028.PC4	-0.090	0.027	-3.31	0.001	-0.144	-0.037	***
1031.PC4	-0.297	0.014	-21.46	0.000	-0.324	-0.270	***
1032.PC4	-0.451	0.010	-47.19	0.000	-0.469	-0.432	***
1033.PC4	-0.510	0.007	-68.75	0.000	-0.524	-0.495	***
1034.PC4	-0.531	0.008	-67.70	0.000	-0.546	-0.516	***
1035.PC4	-0.504	0.008	-65.93	0.000	-0.519	-0.489	***
1036.PC4	-0.592	0.028	-20.94	0.000	-0.647	-0.536	***
1041.PC4	-0.467	0.173	-2.70	0.007	-0.807	-0.128	***
1051.PC4	-0.181	0.007	-26.11	0.000	-0.194	-0.167	***
1052.PC4	-0.131	0.007	-17.85	0.000	-0.145	-0.116	***
1053.PC4	-0.140	0.007	-20.75	0.000	-0.154	-0.127	***
1054.PC4	-0.018	0.007	-2.77	0.006	-0.031	-0.005	***
1055.PC4	-0.394	0.007	-58.62	0.000	-0.407	-0.380	***
1056.PC4	-0.282	0.007	-42.21	0.000	-0.295	-0.269	***
1057.PC4	-0.267	0.007	-36.42	0.000	-0.282	-0.253	***
1058.PC4	-0.148	0.007	-21.86	0.000	-0.162	-0.135	***
1059.PC4	-0.070	0.007	-9.79	0.000	-0.085	-0.056	***
1060.PC4	-0.578	0.008	-76.33	0.000	-0.592	-0.563	***
1061.PC4	-0.557	0.014	-39.48	0.000	-0.584	-0.529	***
1062.PC4	-0.471	0.009	-51.68	0.000	-0.489	-0.453	***
1063.PC4	-0.556	0.008	-72.93	0.000	-0.571	-0.541	***
1064.PC4	-0.499	0.008	-65.57	0.000	-0.514	-0.484	***
1065.PC4	-0.445	0.008	-56.82	0.000	-0.460	-0.430	***
1066.PC4	-0.483	0.007	-66.02	0.000	-0.498	-0.469	***
1067.PC4	-0.575	0.008	-72.81	0.000	-0.591	-0.560	***
1068.PC4	-0.511	0.007	-72.39	0.000	-0.525	-0.497	***
1069.PC4	-0.554	0.007	-81.72	0.000	-0.567	-0.541	***
1071.PC4	0.223	0.007	29.99	0.000	0.209	0.238	***
1072.PC4	-0.067	0.007	-9.85	0.000	-0.081	-0.054	***
1073.PC4	-0.046	0.007	-6.91	0.000	-0.060	-0.033	***
1074.PC4	-0.020	0.008	-2.60	0.009	-0.034	-0.005	***
1075.PC4	0.086	0.008	11.23	0.000	0.071	0.101	***
1076.PC4	-0.057	0.008	-6.77	0.000	-0.073	-0.040	***
1077.PC4	0.182	0.008	23.90	0.000	0.167	0.197	***
1078.PC4	0.019	0.007	2.75	0.006	0.005	0.032	***
1079.PC4	-0.056	0.007	-7.96	0.000	-0.070	-0.042	***
1081.PC4	-0.139	0.008	-16.75	0.000	-0.155	-0.122	***
1082.PC4	-0.274	0.008	-35.98	0.000	-0.289	-0.259	***
1083.PC4	-0.224	0.008	-28.77	0.000	-0.240	-0.209	***
1086.PC4	-0.396	0.012	-31.78	0.000	-0.421	-0.372	***

1087.PC4	-0.408	0.007	-56.64	0.000	-0.423	-0.394	***
1091.PC4	-0.132	0.007	-20.29	0.000	-0.145	-0.119	***
1092.PC4	-0.134	0.008	-17.10	0.000	-0.149	-0.119	***
1093.PC4	-0.173	0.008	-22.06	0.000	-0.189	-0.158	***
1094.PC4	-0.264	0.007	-39.66	0.000	-0.277	-0.250	***
1095.PC4	-0.309	0.008	-41.03	0.000	-0.324	-0.294	***
1096.PC4	-0.135	0.016	-8.60	0.000	-0.166	-0.104	***
1097.PC4	-0.165	0.008	-19.71	0.000	-0.181	-0.149	***
1098.PC4	-0.091	0.007	-12.99	0.000	-0.105	-0.077	***
1102.PC4	-0.741	0.007	-105.45	0.000	-0.755	-0.728	***
1103.PC4	-0.761	0.008	-90.15	0.000	-0.777	-0.744	***
1104.PC4	-0.763	0.010	-79.46	0.000	-0.781	-0.744	***
1106.PC4	-0.692	0.008	-88.08	0.000	-0.707	-0.676	***
1107.PC4	-0.688	0.009	-78.88	0.000	-0.705	-0.671	***
1108.PC4	-0.709	0.010	-74.45	0.000	-0.727	-0.690	***
1109.PC4	-0.490	0.016	-30.51	0.000	-0.521	-0.458	***
1309.PC4	-0.833	0.078	-10.73	0.000	-0.985	-0.681	***
1311.PC4	-0.918	0.009	-101.52	0.000	-0.935	-0.900	***
1312.PC4	-0.867	0.008	-110.07	0.000	-0.882	-0.851	***
1313.PC4	-0.929	0.010	-96.96	0.000	-0.948	-0.911	***
1314.PC4	-0.889	0.009	-95.56	0.000	-0.907	-0.871	***
1315.PC4	-0.792	0.009	-86.00	0.000	-0.810	-0.774	***
1316.PC4	-0.856	0.009	-93.25	0.000	-0.874	-0.838	***
1317.PC4	-0.924	0.010	-92.76	0.000	-0.944	-0.905	***
1318.PC4	-0.949	0.008	-123.83	0.000	-0.964	-0.933	***
1319.PC4	-0.925	0.011	-87.50	0.000	-0.946	-0.905	***
1321.PC4	-0.921	0.008	-121.29	0.000	-0.936	-0.906	***
1323.PC4	-0.880	0.009	-103.25	0.000	-0.897	-0.863	***
1324.PC4	-0.926	0.007	-124.72	0.000	-0.940	-0.911	***
1325.PC4	-0.882	0.007	-119.08	0.000	-0.897	-0.868	***
1326.PC4	-0.950	0.007	-127.36	0.000	-0.964	-0.935	***
1328.PC4	-0.975	0.007	-135.07	0.000	-0.989	-0.961	***
1331.PC4	-0.094	0.173	-0.54	0.588	-0.433	0.245	
1333.PC4	-0.928	0.007	-128.56	0.000	-0.942	-0.914	***
1334.PC4	-0.922	0.015	-62.42	0.000	-0.951	-0.893	***
1335.PC4	-0.997	0.007	-141.46	0.000	-1.011	-0.983	***
1336.PC4	-0.949	0.008	-116.68	0.000	-0.965	-0.933	***
1338.PC4	-0.961	0.007	-128.55	0.000	-0.976	-0.947	***
1339.PC4	-1.001	0.007	-144.35	0.000	-1.015	-0.988	***
1343.PC4	-0.740	0.014	-53.95	0.000	-0.766	-0.713	***
1349.PC4	-0.618	0.039	-15.79	0.000	-0.694	-0.541	***
1351.PC4	-0.847	0.012	-68.24	0.000	-0.871	-0.823	***
1352.PC4	-0.848	0.013	-63.56	0.000	-0.874	-0.822	***
1353.PC4	-0.845	0.011	-77.51	0.000	-0.866	-0.823	***
1354.PC4	-0.878	0.012	-72.42	0.000	-0.902	-0.854	***
1355.PC4	-0.852	0.012	-70.83	0.000	-0.876	-0.829	***
1356.PC4	-0.877	0.013	-66.47	0.000	-0.903	-0.851	***
1357.PC4	-0.781	0.010	-82.16	0.000	-0.800	-0.762	***
1358.PC4	-0.690	0.030	-22.81	0.000	-0.749	-0.630	***
1359.PC4	-0.762	0.013	-59.63	0.000	-0.787	-0.737	***
1361.PC4	-0.395	0.027	-14.78	0.000	-0.447	-0.342	***
1363.PC4	-0.854	0.011	-77.00	0.000	-0.876	-0.832	***
1501.PC4	-0.742	0.011	-67.45	0.000	-0.764	-0.721	***
1502.PC4	-0.747	0.011	-68.61	0.000	-0.768	-0.726	***
1503.PC4	-0.759	0.009	-89.13	0.000	-0.775	-0.742	***
1504.PC4	-0.691	0.010	-68.70	0.000	-0.711	-0.671	***
1505.PC4	-0.760	0.014	-54.97	0.000	-0.787	-0.733	***
1506.PC4	-0.679	0.009	-76.62	0.000	-0.696	-0.661	***
1507.PC4	-0.641	0.010	-63.98	0.000	-0.661	-0.622	***
1508.PC4	-0.673	0.010	-64.57	0.000	-0.693	-0.653	***
1509.PC4	-0.633	0.009	-72.28	0.000	-0.651	-0.616	***
1521.PC4	-0.727	0.007	-103.32	0.000	-0.741	-0.713	***

1525.PC4	-0.584	0.023	-25.55	0.000	-0.628	-0.539	***
1541.PC4	-0.654	0.010	-64.52	0.000	-0.674	-0.634	***
1544.PC4	-0.678	0.009	-75.67	0.000	-0.696	-0.660	***
1551.PC4	-0.616	0.014	-43.98	0.000	-0.644	-0.589	***
1561.PC4	-0.710	0.008	-85.66	0.000	-0.726	-0.694	***
1562.PC4	-0.654	0.008	-79.25	0.000	-0.670	-0.638	***
1566.PC4	-0.720	0.008	-91.61	0.000	-0.736	-0.705	***
1567.PC4	-0.767	0.010	-79.65	0.000	-0.786	-0.748	***
1621.PC4	-0.544	0.009	-62.77	0.000	-0.561	-0.527	***
1622.PC4	-0.850	0.009	-97.90	0.000	-0.867	-0.833	***
1623.PC4	-0.584	0.013	-44.23	0.000	-0.609	-0.558	***
1624.PC4	-0.649	0.011	-59.22	0.000	-0.671	-0.628	***
1625.PC4	-0.832	0.009	-96.83	0.000	-0.849	-0.815	***
1628.PC4	-0.911	0.007	-131.92	0.000	-0.925	-0.898	***
1689.PC4	-0.861	0.007	-116.72	0.000	-0.875	-0.846	***
1695.PC4	-0.752	0.012	-63.82	0.000	-0.775	-0.729	***
1701.PC4	-0.832	0.008	-98.97	0.000	-0.849	-0.816	***
1702.PC4	-0.822	0.009	-90.72	0.000	-0.839	-0.804	***
1703.PC4	-0.850	0.008	-112.36	0.000	-0.865	-0.835	***
1704.PC4	-0.803	0.009	-88.73	0.000	-0.821	-0.786	***
1705.PC4	-0.847	0.007	-123.75	0.000	-0.860	-0.833	***
2011.PC4	-0.326	0.007	-49.80	0.000	-0.339	-0.313	***
2012.PC4	-0.296	0.007	-43.73	0.000	-0.309	-0.283	***
2013.PC4	-0.457	0.007	-63.57	0.000	-0.471	-0.443	***
2014.PC4	-0.403	0.008	-50.73	0.000	-0.419	-0.388	***
2015.PC4	-0.225	0.008	-26.89	0.000	-0.241	-0.208	***
2019.PC4	-0.259	0.052	-4.95	0.000	-0.362	-0.157	***
2021.PC4	-0.553	0.007	-78.17	0.000	-0.567	-0.539	***
2022.PC4	-0.525	0.007	-71.17	0.000	-0.540	-0.511	***
2023.PC4	-0.334	0.007	-47.55	0.000	-0.348	-0.320	***
2024.PC4	-0.439	0.007	-61.58	0.000	-0.453	-0.425	***
2025.PC4	-0.556	0.007	-74.15	0.000	-0.570	-0.541	***
2026.PC4	-0.505	0.009	-56.30	0.000	-0.523	-0.488	***
2031.PC4	-0.425	0.018	-23.59	0.000	-0.460	-0.390	***
2032.PC4	-0.567	0.008	-71.56	0.000	-0.582	-0.551	***
2033.PC4	-0.583	0.009	-67.26	0.000	-0.600	-0.566	***
2034.PC4	-0.624	0.008	-82.03	0.000	-0.638	-0.609	***
2035.PC4	-0.635	0.011	-59.62	0.000	-0.656	-0.614	***
2036.PC4	-0.603	0.008	-79.98	0.000	-0.617	-0.588	***
2037.PC4	-0.647	0.012	-52.77	0.000	-0.671	-0.623	***
2063.PC4	-0.417	0.023	-17.83	0.000	-0.463	-0.371	***
2171.PC4	-0.498	0.007	-67.87	0.000	-0.512	-0.483	***
2172.PC4	-0.522	0.009	-60.05	0.000	-0.539	-0.505	***
2215.PC4	-0.568	0.007	-82.81	0.000	-0.581	-0.554	***
2361.PC4	-0.428	0.011	-39.37	0.000	-0.449	-0.407	***
2362.PC4	-0.305	0.061	-4.96	0.000	-0.425	-0.185	***
2401.PC4	-0.670	0.008	-87.01	0.000	-0.685	-0.655	***
2402.PC4	-0.710	0.007	-97.84	0.000	-0.724	-0.696	***
2403.PC4	-0.713	0.008	-90.42	0.000	-0.728	-0.697	***
2404.PC4	-0.663	0.010	-69.77	0.000	-0.682	-0.645	***
2405.PC4	-0.652	0.009	-76.22	0.000	-0.669	-0.635	***
2406.PC4	-0.617	0.008	-81.19	0.000	-0.632	-0.602	***
2407.PC4	-0.356	0.029	-12.43	0.000	-0.412	-0.300	***
2408.PC4	-0.684	0.007	-92.44	0.000	-0.699	-0.670	***
2409.PC4	-0.233	0.173	-1.35	0.178	-0.573	0.106	
2445.PC4	-0.461	0.020	-23.14	0.000	-0.500	-0.422	***
2471.PC4	-0.639	0.017	-36.73	0.000	-0.673	-0.605	***
2491.PC4	-0.600	0.039	-15.36	0.000	-0.677	-0.524	***
2492.PC4	-0.711	0.007	-95.96	0.000	-0.726	-0.697	***
2493.PC4	-0.661	0.010	-66.27	0.000	-0.681	-0.642	***
2495.PC4	-0.531	0.038	-13.90	0.000	-0.605	-0.456	***
2496.PC4	-0.691	0.008	-84.86	0.000	-0.707	-0.675	***

2497.PC4	-0.803	0.008	-99.32	0.000	-0.819	-0.787	***
2498.PC4	-0.629	0.011	-58.26	0.000	-0.650	-0.608	***
2511.PC4	-0.444	0.012	-37.36	0.000	-0.467	-0.421	***
2512.PC4	-0.660	0.008	-85.08	0.000	-0.675	-0.644	***
2513.PC4	-0.548	0.008	-71.34	0.000	-0.563	-0.533	***
2514.PC4	-0.205	0.009	-23.14	0.000	-0.222	-0.188	***
2515.PC4	-0.778	0.010	-79.76	0.000	-0.797	-0.759	***
2516.PC4	-1.007	0.011	-87.84	0.000	-1.030	-0.985	***
2517.PC4	-0.392	0.007	-57.11	0.000	-0.406	-0.379	***
2518.PC4	-0.501	0.007	-69.72	0.000	-0.515	-0.487	***
2521.PC4	-0.840	0.011	-79.04	0.000	-0.861	-0.819	***
2522.PC4	-1.076	0.008	-143.38	0.000	-1.091	-1.062	***
2523.PC4	-1.066	0.010	-111.83	0.000	-1.085	-1.048	***
2524.PC4	-1.034	0.012	-87.36	0.000	-1.057	-1.010	***
2525.PC4	-1.068	0.012	-89.28	0.000	-1.092	-1.045	***
2526.PC4	-0.905	0.011	-85.93	0.000	-0.926	-0.885	***
2531.PC4	-1.016	0.009	-109.94	0.000	-1.034	-0.998	***
2532.PC4	-0.897	0.017	-53.79	0.000	-0.930	-0.864	***
2533.PC4	-0.914	0.016	-55.82	0.000	-0.947	-0.882	***
2541.PC4	-0.994	0.009	-110.75	0.000	-1.012	-0.976	***
2542.PC4	-0.985	0.009	-104.29	0.000	-1.004	-0.967	***
2543.PC4	-0.871	0.012	-73.30	0.000	-0.894	-0.848	***
2544.PC4	-0.930	0.009	-101.25	0.000	-0.948	-0.912	***
2545.PC4	-0.856	0.008	-107.32	0.000	-0.871	-0.840	***
2546.PC4	-0.909	0.007	-125.98	0.000	-0.923	-0.895	***
2547.PC4	-0.860	0.007	-116.67	0.000	-0.874	-0.846	***
2548.PC4	-0.734	0.007	-104.36	0.000	-0.748	-0.720	***
2551.PC4	-0.729	0.007	-102.42	0.000	-0.743	-0.715	***
2552.PC4	-0.714	0.007	-102.12	0.000	-0.728	-0.701	***
2553.PC4	-0.683	0.008	-86.09	0.000	-0.698	-0.667	***
2554.PC4	-0.275	0.013	-21.81	0.000	-0.300	-0.250	***
2555.PC4	-0.629	0.007	-93.35	0.000	-0.642	-0.616	***
2561.PC4	-0.658	0.008	-83.15	0.000	-0.673	-0.642	***
2562.PC4	-0.731	0.008	-91.82	0.000	-0.746	-0.715	***
2563.PC4	-0.792	0.007	-116.82	0.000	-0.805	-0.779	***
2564.PC4	-0.675	0.006	-104.17	0.000	-0.688	-0.663	***
2565.PC4	-0.662	0.006	-102.97	0.000	-0.675	-0.650	***
2566.PC4	-0.281	0.008	-37.11	0.000	-0.296	-0.266	***
2571.PC4	-1.003	0.009	-108.59	0.000	-1.021	-0.985	***
2572.PC4	-1.146	0.014	-83.51	0.000	-1.173	-1.119	***
2573.PC4	-1.029	0.007	-146.69	0.000	-1.043	-1.015	***
2574.PC4	-0.988	0.008	-131.23	0.000	-1.003	-0.973	***
2581.PC4	-0.534	0.009	-61.48	0.000	-0.551	-0.517	***
2582.PC4	-0.272	0.007	-39.24	0.000	-0.285	-0.258	***
2583.PC4	-0.681	0.008	-89.25	0.000	-0.696	-0.666	***
2584.PC4	-0.492	0.008	-61.82	0.000	-0.507	-0.476	***
2585.PC4	-0.227	0.007	-30.59	0.000	-0.241	-0.212	***
2586.PC4	-0.456	0.007	-65.61	0.000	-0.469	-0.442	***
2587.PC4	-0.438	0.007	-59.88	0.000	-0.452	-0.423	***
2591.PC4	-0.781	0.008	-97.91	0.000	-0.796	-0.765	***
2592.PC4	-0.712	0.008	-93.32	0.000	-0.727	-0.697	***
2593.PC4	-0.639	0.006	-99.07	0.000	-0.651	-0.626	***
2594.PC4	-0.478	0.010	-47.84	0.000	-0.498	-0.459	***
2595.PC4	-0.598	0.007	-81.40	0.000	-0.612	-0.583	***
2596.PC4	-0.277	0.007	-38.91	0.000	-0.291	-0.263	***
2597.PC4	-0.369	0.007	-55.38	0.000	-0.382	-0.356	***
2711.PC4	-0.687	0.011	-62.03	0.000	-0.709	-0.666	***
2712.PC4	-0.631	0.008	-80.47	0.000	-0.647	-0.616	***
2713.PC4	-0.731	0.008	-97.29	0.000	-0.746	-0.717	***
2715.PC4	-0.834	0.008	-100.21	0.000	-0.850	-0.818	***
2716.PC4	-0.798	0.008	-102.36	0.000	-0.814	-0.783	***
2717.PC4	-0.739	0.009	-85.33	0.000	-0.756	-0.722	***



2718.PC4	-0.686	0.008	-84.62	0.000	-0.702	-0.671	***
2719.PC4	-0.720	0.007	-96.94	0.000	-0.734	-0.705	***
2721.PC4	-0.727	0.009	-77.70	0.000	-0.746	-0.709	***
2722.PC4	-0.724	0.010	-70.88	0.000	-0.744	-0.704	***
2723.PC4	-0.710	0.009	-75.45	0.000	-0.729	-0.692	***
2724.PC4	-0.702	0.008	-86.56	0.000	-0.718	-0.686	***
2725.PC4	-0.650	0.009	-72.22	0.000	-0.667	-0.632	***
2726.PC4	-0.678	0.008	-81.25	0.000	-0.695	-0.662	***
2727.PC4	-0.726	0.009	-76.63	0.000	-0.745	-0.708	***
2728.PC4	-0.725	0.008	-93.40	0.000	-0.740	-0.710	***
2729.PC4	-0.802	0.008	-102.94	0.000	-0.818	-0.787	***
2921.PC4	-0.713	0.013	-55.28	0.000	-0.738	-0.688	***
2922.PC4	-0.624	0.009	-68.69	0.000	-0.642	-0.606	***
2923.PC4	-0.632	0.010	-63.98	0.000	-0.651	-0.613	***
2924.PC4	-0.659	0.011	-58.09	0.000	-0.682	-0.637	***
2925.PC4	-0.707	0.010	-73.71	0.000	-0.726	-0.688	***
2926.PC4	-0.720	0.013	-54.77	0.000	-0.746	-0.694	***
3011.PC4	-0.562	0.007	-78.99	0.000	-0.576	-0.548	***
3012.PC4	-0.650	0.012	-55.77	0.000	-0.673	-0.627	***
3013.PC4	-0.672	0.016	-42.67	0.000	-0.703	-0.642	***
3014.PC4	-0.924	0.013	-69.27	0.000	-0.951	-0.898	***
3015.PC4	-0.664	0.013	-52.30	0.000	-0.689	-0.639	***
3016.PC4	-0.225	0.016	-13.91	0.000	-0.257	-0.194	***
3021.PC4	-0.782	0.007	-105.61	0.000	-0.797	-0.768	***
3022.PC4	-0.882	0.009	-99.57	0.000	-0.899	-0.864	***
3023.PC4	-0.734	0.010	-75.23	0.000	-0.754	-0.715	***
3024.PC4	-0.705	0.009	-82.28	0.000	-0.721	-0.688	***
3025.PC4	-0.902	0.012	-76.53	0.000	-0.925	-0.879	***
3026.PC4	-1.059	0.012	-84.97	0.000	-1.083	-1.035	***
3027.PC4	-1.033	0.009	-114.16	0.000	-1.051	-1.015	***
3028.PC4	-1.079	0.008	-139.79	0.000	-1.094	-1.064	***
3029.PC4	-1.079	0.024	-45.33	0.000	-1.126	-1.032	***
3031.PC4	-0.703	0.009	-80.00	0.000	-0.720	-0.685	***
3032.PC4	-0.729	0.010	-73.02	0.000	-0.748	-0.709	***
3033.PC4	-0.756	0.012	-63.36	0.000	-0.779	-0.733	***
3034.PC4	-0.727	0.015	-48.98	0.000	-0.756	-0.698	***
3035.PC4	-0.857	0.013	-63.86	0.000	-0.883	-0.830	***
3036.PC4	-0.927	0.012	-78.42	0.000	-0.950	-0.903	***
3037.PC4	-0.750	0.009	-80.09	0.000	-0.769	-0.732	***
3038.PC4	-0.869	0.008	-114.69	0.000	-0.884	-0.854	***
3039.PC4	-0.698	0.007	-103.02	0.000	-0.711	-0.685	***
3042.PC4	-0.885	0.008	-106.46	0.000	-0.901	-0.868	***
3043.PC4	-0.813	0.008	-104.36	0.000	-0.828	-0.797	***
3044.PC4	-0.579	0.071	-8.17	0.000	-0.718	-0.440	***
3045.PC4	-0.559	0.020	-27.47	0.000	-0.599	-0.519	***
3046.PC4	-0.583	0.034	-17.26	0.000	-0.649	-0.516	***
3047.PC4	-0.409	0.122	-3.34	0.001	-0.649	-0.169	***
3051.PC4	-0.713	0.008	-91.81	0.000	-0.728	-0.698	***
3052.PC4	-0.627	0.011	-55.02	0.000	-0.649	-0.605	***
3053.PC4	-0.593	0.009	-66.65	0.000	-0.611	-0.576	***
3054.PC4	-0.423	0.009	-46.98	0.000	-0.440	-0.405	***
3055.PC4	-0.376	0.008	-46.06	0.000	-0.392	-0.360	***
3056.PC4	-0.611	0.011	-54.16	0.000	-0.633	-0.589	***
3059.PC4	-0.631	0.008	-81.16	0.000	-0.646	-0.615	***
3061.PC4	-0.709	0.007	-98.02	0.000	-0.723	-0.694	***
3062.PC4	-0.402	0.008	-48.28	0.000	-0.418	-0.386	***
3063.PC4	-0.597	0.008	-73.76	0.000	-0.613	-0.581	***
3064.PC4	-0.878	0.013	-66.17	0.000	-0.904	-0.852	***
3065.PC4	-0.575	0.009	-65.83	0.000	-0.592	-0.558	***
3066.PC4	-0.685	0.008	-83.05	0.000	-0.702	-0.669	***
3067.PC4	-0.770	0.007	-113.79	0.000	-0.784	-0.757	***
3068.PC4	-0.781	0.007	-110.15	0.000	-0.795	-0.767	***

3069.PC4	-0.712	0.007	-99.66	0.000	-0.726	-0.698	***
3071.PC4	-0.665	0.008	-86.43	0.000	-0.680	-0.650	***
3072.PC4	-0.847	0.012	-68.00	0.000	-0.872	-0.823	***
3073.PC4	-1.008	0.010	-103.40	0.000	-1.028	-0.989	***
3074.PC4	-1.193	0.009	-127.92	0.000	-1.211	-1.174	***
3075.PC4	-0.911	0.011	-83.83	0.000	-0.932	-0.890	***
3076.PC4	-0.855	0.009	-94.52	0.000	-0.873	-0.837	***
3077.PC4	-0.848	0.008	-108.84	0.000	-0.863	-0.833	***
3078.PC4	-0.839	0.010	-83.72	0.000	-0.859	-0.820	***
3079.PC4	-0.855	0.008	-108.17	0.000	-0.870	-0.839	***
3081.PC4	-1.139	0.010	-111.40	0.000	-1.159	-1.119	***
3082.PC4	-1.080	0.009	-124.87	0.000	-1.097	-1.063	***
3083.PC4	-1.097	0.009	-127.91	0.000	-1.114	-1.080	***
3084.PC4	-0.664	0.029	-22.61	0.000	-0.721	-0.606	***
3085.PC4	-0.896	0.009	-98.14	0.000	-0.914	-0.878	***
3086.PC4	-1.018	0.010	-106.01	0.000	-1.037	-0.999	***
3087.PC4	-0.735	0.015	-48.02	0.000	-0.765	-0.705	***
3088.PC4	-0.547	0.122	-4.47	0.000	-0.787	-0.307	***
3089.PC4	-0.944	0.030	-31.71	0.000	-1.002	-0.885	***
3151.PC4	-0.622	0.014	-44.77	0.000	-0.650	-0.595	***
3161.PC4	-0.672	0.008	-81.41	0.000	-0.688	-0.655	***
3162.PC4	-0.692	0.009	-75.13	0.000	-0.710	-0.673	***
3171.PC4	-0.724	0.010	-74.77	0.000	-0.743	-0.705	***
3172.PC4	-0.638	0.024	-26.62	0.000	-0.685	-0.591	***
3176.PC4	-0.673	0.012	-57.83	0.000	-0.696	-0.650	***
3191.PC4	-0.845	0.008	-101.64	0.000	-0.862	-0.829	***
3192.PC4	-0.863	0.009	-97.45	0.000	-0.880	-0.846	***
3193.PC4	-0.929	0.009	-101.59	0.000	-0.947	-0.911	***
3194.PC4	-0.863	0.009	-98.80	0.000	-0.880	-0.846	***
3195.PC4	-0.956	0.010	-94.13	0.000	-0.976	-0.936	***
3311.PC4	-0.764	0.007	-116.60	0.000	-0.777	-0.751	***
3312.PC4	-0.883	0.007	-123.92	0.000	-0.897	-0.869	***
3313.PC4	-0.933	0.008	-115.16	0.000	-0.949	-0.918	***
3314.PC4	-0.939	0.007	-136.17	0.000	-0.953	-0.926	***
3315.PC4	-0.819	0.007	-120.11	0.000	-0.833	-0.806	***
3316.PC4	-0.756	0.020	-38.19	0.000	-0.795	-0.717	***
3317.PC4	-0.912	0.007	-123.93	0.000	-0.927	-0.898	***
3318.PC4	-0.766	0.010	-74.83	0.000	-0.786	-0.746	***
3319.PC4	-0.623	0.008	-80.78	0.000	-0.638	-0.607	***
3328.PC4	-0.807	0.007	-121.06	0.000	-0.820	-0.794	***
3329.PC4	-0.564	0.016	-36.01	0.000	-0.595	-0.533	***
3431.PC4	-0.675	0.008	-89.97	0.000	-0.690	-0.660	***
3432.PC4	-0.689	0.008	-82.06	0.000	-0.706	-0.673	***
3433.PC4	-0.583	0.011	-52.46	0.000	-0.605	-0.561	***
3434.PC4	-0.646	0.008	-81.86	0.000	-0.661	-0.630	***
3435.PC4	-0.639	0.008	-79.09	0.000	-0.655	-0.623	***
3436.PC4	-0.668	0.008	-82.99	0.000	-0.684	-0.653	***
3437.PC4	-0.666	0.007	-95.61	0.000	-0.680	-0.653	***
3438.PC4	-0.679	0.008	-86.74	0.000	-0.694	-0.663	***
3439.PC4	-0.377	0.047	-8.10	0.000	-0.468	-0.286	***
3451.PC4	-0.545	0.008	-72.15	0.000	-0.560	-0.530	***
3452.PC4	-0.618	0.008	-79.00	0.000	-0.634	-0.603	***
3453.PC4	-0.687	0.007	-96.91	0.000	-0.701	-0.673	***
3454.PC4	-0.567	0.007	-79.70	0.000	-0.581	-0.553	***
3455.PC4	-0.417	0.025	-16.47	0.000	-0.467	-0.368	***
3511.PC4	-0.271	0.007	-37.17	0.000	-0.286	-0.257	***
3512.PC4	-0.201	0.008	-25.14	0.000	-0.216	-0.185	***
3513.PC4	-0.404	0.008	-53.03	0.000	-0.419	-0.389	***
3514.PC4	-0.284	0.008	-37.85	0.000	-0.299	-0.269	***
3515.PC4	-0.326	0.009	-37.79	0.000	-0.343	-0.309	***
3521.PC4	-0.382	0.008	-46.38	0.000	-0.398	-0.366	***
3522.PC4	-0.440	0.007	-61.46	0.000	-0.454	-0.426	***

3523.PC4	-0.485	0.007	-68.03	0.000	-0.499	-0.471	***
3524.PC4	-0.566	0.007	-77.31	0.000	-0.581	-0.552	***
3525.PC4	-0.504	0.009	-56.48	0.000	-0.521	-0.486	***
3526.PC4	-0.666	0.008	-86.53	0.000	-0.681	-0.651	***
3527.PC4	-0.635	0.008	-80.16	0.000	-0.650	-0.619	***
3531.PC4	-0.420	0.007	-63.19	0.000	-0.433	-0.407	***
3532.PC4	-0.424	0.007	-58.83	0.000	-0.438	-0.410	***
3533.PC4	-0.368	0.007	-51.82	0.000	-0.382	-0.354	***
3534.PC4	-0.605	0.012	-51.82	0.000	-0.628	-0.582	***
3542.PC4	-0.477	0.047	-10.24	0.000	-0.568	-0.386	***
3543.PC4	-0.669	0.008	-80.39	0.000	-0.685	-0.652	***
3544.PC4	-0.672	0.007	-101.19	0.000	-0.685	-0.659	***
3545.PC4	-0.456	0.055	-8.29	0.000	-0.563	-0.348	***
3546.PC4	-0.741	0.087	-8.55	0.000	-0.911	-0.571	***
3551.PC4	-0.498	0.007	-70.40	0.000	-0.512	-0.484	***
3552.PC4	-0.525	0.008	-66.63	0.000	-0.541	-0.510	***
3553.PC4	-0.553	0.007	-81.79	0.000	-0.566	-0.540	***
3554.PC4	-0.636	0.008	-81.49	0.000	-0.651	-0.621	***
3555.PC4	-0.591	0.008	-77.41	0.000	-0.606	-0.576	***
3561.PC4	-0.643	0.009	-69.19	0.000	-0.661	-0.625	***
3562.PC4	-0.677	0.008	-82.38	0.000	-0.693	-0.661	***
3563.PC4	-0.693	0.011	-65.72	0.000	-0.714	-0.673	***
3564.PC4	-0.699	0.010	-71.93	0.000	-0.718	-0.680	***
3565.PC4	-0.052	0.122	-0.42	0.672	-0.292	0.188	
3566.PC4	-0.184	0.040	-4.59	0.000	-0.263	-0.105	***
3571.PC4	-0.257	0.008	-33.80	0.000	-0.272	-0.242	***
3572.PC4	-0.284	0.007	-41.45	0.000	-0.297	-0.270	***
3573.PC4	-0.475	0.011	-43.39	0.000	-0.496	-0.453	***
3581.PC4	-0.266	0.007	-37.42	0.000	-0.280	-0.252	***
3582.PC4	-0.375	0.008	-49.04	0.000	-0.390	-0.360	***
3583.PC4	-0.231	0.008	-27.79	0.000	-0.247	-0.215	***
3584.PC4	-0.307	0.010	-29.25	0.000	-0.328	-0.287	***
3585.PC4	-0.342	0.050	-6.81	0.000	-0.441	-0.244	***
3701.PC4	-0.421	0.008	-53.63	0.000	-0.437	-0.406	***
3702.PC4	-0.439	0.010	-44.34	0.000	-0.458	-0.419	***
3703.PC4	-0.380	0.009	-41.85	0.000	-0.398	-0.363	***
3704.PC4	-0.531	0.008	-63.47	0.000	-0.548	-0.515	***
3705.PC4	-0.390	0.008	-48.21	0.000	-0.406	-0.374	***
3706.PC4	-0.621	0.011	-54.93	0.000	-0.643	-0.598	***
3707.PC4	-0.339	0.008	-41.37	0.000	-0.356	-0.323	***
3708.PC4	-0.543	0.008	-64.11	0.000	-0.559	-0.526	***
3709.PC4	-0.966	0.036	-26.46	0.000	-1.037	-0.894	***
3711.PC4	-0.409	0.016	-26.23	0.000	-0.440	-0.379	***
3712.PC4	-0.568	0.014	-39.37	0.000	-0.597	-0.540	***
3734.PC4	-0.386	0.010	-38.57	0.000	-0.406	-0.366	***
3735.PC4	-0.179	0.014	-12.86	0.000	-0.206	-0.152	***
4331.PC4	-0.750	0.008	-98.33	0.000	-0.765	-0.735	***
4332.PC4	-0.819	0.009	-88.56	0.000	-0.838	-0.801	***
4333.PC4	-0.733	0.009	-80.27	0.000	-0.751	-0.715	***
4334.PC4	-0.836	0.010	-83.68	0.000	-0.856	-0.817	***
4335.PC4	-0.877	0.009	-100.73	0.000	-0.895	-0.860	***
4336.PC4	-0.885	0.008	-104.27	0.000	-0.902	-0.868	***
4337.PC4	-0.948	0.009	-102.28	0.000	-0.966	-0.930	***
4338.PC4	-0.884	0.087	-10.21	0.000	-1.054	-0.715	***
4339.PC4	-0.967	0.018	-54.66	0.000	-1.002	-0.933	***
4341.PC4	-0.829	0.020	-41.65	0.000	-0.868	-0.790	***
4811.PC4	-0.541	0.007	-81.12	0.000	-0.554	-0.528	***
4812.PC4	-0.704	0.008	-88.47	0.000	-0.719	-0.688	***
4813.PC4	-0.657	0.008	-79.69	0.000	-0.673	-0.640	***
4814.PC4	-0.752	0.008	-97.28	0.000	-0.767	-0.737	***
4815.PC4	-0.678	0.011	-64.42	0.000	-0.698	-0.657	***
4816.PC4	-0.773	0.012	-65.96	0.000	-0.796	-0.750	***

4817.PC4	-0.680	0.007	-94.66	0.000	-0.694	-0.666	***
4818.PC4	-0.480	0.007	-66.93	0.000	-0.494	-0.466	***
4819.PC4	-0.510	0.009	-58.44	0.000	-0.527	-0.493	***
4822.PC4	-0.773	0.008	-95.94	0.000	-0.789	-0.757	***
4823.PC4	-0.768	0.007	-102.83	0.000	-0.783	-0.754	***
4824.PC4	-0.788	0.008	-102.46	0.000	-0.803	-0.773	***
4825.PC4	-0.646	0.052	-12.31	0.000	-0.749	-0.543	***
4826.PC4	-0.791	0.008	-98.05	0.000	-0.807	-0.775	***
4827.PC4	-0.742	0.011	-65.25	0.000	-0.764	-0.719	***
4834.PC4	-0.573	0.007	-82.68	0.000	-0.586	-0.559	***
4835.PC4	-0.420	0.007	-57.75	0.000	-0.435	-0.406	***
4836.PC4	-0.252	0.027	-9.45	0.000	-0.304	-0.200	***
4837.PC4	-0.417	0.011	-38.58	0.000	-0.438	-0.396	***
4838.PC4	-0.481	0.018	-26.79	0.000	-0.516	-0.446	***
4839.PC4	-0.343	0.037	-9.39	0.000	-0.414	-0.271	***
4841.PC4	-0.587	0.008	-77.76	0.000	-0.602	-0.572	***
4847.PC4	-0.581	0.009	-62.40	0.000	-0.599	-0.563	***
4851.PC4	-0.397	0.009	-43.62	0.000	-0.415	-0.379	***
4854.PC4	-0.532	0.008	-63.92	0.000	-0.549	-0.516	***
5011.PC4	-0.914	0.009	-100.99	0.000	-0.932	-0.896	***
5012.PC4	-0.865	0.011	-77.86	0.000	-0.887	-0.844	***
5013.PC4	-0.776	0.018	-42.69	0.000	-0.811	-0.740	***
5014.PC4	-0.888	0.007	-121.58	0.000	-0.902	-0.874	***
5015.PC4	-0.746	0.020	-38.12	0.000	-0.785	-0.708	***
5017.PC4	-0.723	0.009	-76.54	0.000	-0.741	-0.704	***
5018.PC4	-0.676	0.011	-59.06	0.000	-0.699	-0.654	***
5021.PC4	-0.870	0.007	-117.40	0.000	-0.884	-0.855	***
5022.PC4	-0.872	0.009	-94.51	0.000	-0.890	-0.854	***
5025.PC4	-0.884	0.007	-121.83	0.000	-0.898	-0.869	***
5026.PC4	-0.538	0.037	-14.42	0.000	-0.611	-0.465	***
5032.PC4	-0.635	0.008	-75.06	0.000	-0.651	-0.618	***
5035.PC4	-0.893	0.008	-113.36	0.000	-0.908	-0.877	***
5036.PC4	-0.843	0.009	-89.02	0.000	-0.862	-0.825	***
5037.PC4	-0.665	0.007	-90.23	0.000	-0.679	-0.651	***
5038.PC4	-0.728	0.007	-100.88	0.000	-0.743	-0.714	***
5041.PC4	-0.842	0.008	-104.25	0.000	-0.858	-0.827	***
5042.PC4	-0.791	0.007	-109.02	0.000	-0.805	-0.776	***
5043.PC4	-0.865	0.008	-113.02	0.000	-0.880	-0.850	***
5044.PC4	-0.784	0.009	-83.49	0.000	-0.802	-0.765	***
5045.PC4	-0.873	0.007	-133.80	0.000	-0.886	-0.860	***
5046.PC4	-0.898	0.007	-120.94	0.000	-0.912	-0.883	***
5047.PC4	-0.939	0.052	-17.89	0.000	-1.042	-0.836	***
5049.PC4	-0.887	0.012	-74.63	0.000	-0.910	-0.863	***
5056.PC4	-0.616	0.008	-78.71	0.000	-0.632	-0.601	***
5071.PC4	-0.627	0.009	-68.59	0.000	-0.645	-0.609	***
5261.PC4	-0.510	0.008	-63.42	0.000	-0.526	-0.494	***
5262.PC4	-0.576	0.007	-78.54	0.000	-0.591	-0.562	***
5263.PC4	-0.377	0.010	-38.51	0.000	-0.396	-0.357	***
5266.PC4	-0.500	0.025	-19.72	0.000	-0.549	-0.450	***
5361.PC4	-0.835	0.008	-105.53	0.000	-0.851	-0.820	***
5363.PC4	-0.800	0.022	-37.07	0.000	-0.843	-0.758	***
5364.PC4	-0.736	0.019	-37.77	0.000	-0.774	-0.698	***
5438.PC4	-0.802	0.023	-34.82	0.000	-0.847	-0.756	***
5611.PC4	-0.540	0.007	-77.53	0.000	-0.554	-0.527	***
5612.PC4	-0.698	0.009	-81.05	0.000	-0.714	-0.681	***
5613.PC4	-0.723	0.008	-88.08	0.000	-0.739	-0.707	***
5614.PC4	-0.585	0.009	-65.15	0.000	-0.602	-0.567	***
5615.PC4	-0.598	0.008	-77.85	0.000	-0.613	-0.583	***
5616.PC4	-0.726	0.007	-99.84	0.000	-0.740	-0.712	***
5621.PC4	-0.845	0.011	-77.06	0.000	-0.867	-0.824	***
5622.PC4	-0.825	0.008	-105.14	0.000	-0.840	-0.809	***
5623.PC4	-0.728	0.007	-100.95	0.000	-0.742	-0.714	***

5624.PC4	-0.752	0.009	-81.86	0.000	-0.770	-0.734	***
5625.PC4	-0.752	0.008	-99.66	0.000	-0.767	-0.737	***
5626.PC4	-0.723	0.011	-68.51	0.000	-0.743	-0.702	***
5627.PC4	-0.763	0.007	-107.40	0.000	-0.777	-0.749	***
5628.PC4	-0.749	0.008	-93.54	0.000	-0.764	-0.733	***
5629.PC4	-0.704	0.008	-88.82	0.000	-0.720	-0.688	***
5631.PC4	-0.691	0.008	-82.16	0.000	-0.707	-0.674	***
5632.PC4	-0.744	0.007	-103.46	0.000	-0.759	-0.730	***
5633.PC4	-0.745	0.078	-9.60	0.000	-0.897	-0.593	***
5641.PC4	-0.811	0.009	-92.46	0.000	-0.828	-0.794	***
5642.PC4	-0.828	0.009	-92.56	0.000	-0.846	-0.810	***
5643.PC4	-0.735	0.008	-93.88	0.000	-0.750	-0.719	***
5644.PC4	-0.620	0.008	-79.93	0.000	-0.635	-0.605	***
5645.PC4	-0.738	0.010	-73.36	0.000	-0.758	-0.719	***
5646.PC4	-0.607	0.013	-45.78	0.000	-0.633	-0.581	***
5647.PC4	-0.129	0.173	-0.74	0.457	-0.468	0.210	
5651.PC4	-0.693	0.014	-49.87	0.000	-0.720	-0.666	***
5652.PC4	-0.762	0.008	-92.04	0.000	-0.778	-0.746	***
5653.PC4	-0.842	0.008	-100.58	0.000	-0.858	-0.825	***
5654.PC4	-0.856	0.008	-105.53	0.000	-0.872	-0.840	***
5655.PC4	-0.771	0.011	-72.77	0.000	-0.792	-0.750	***
5657.PC4	-0.596	0.055	-10.85	0.000	-0.704	-0.489	***
5658.PC4	-0.783	0.008	-103.52	0.000	-0.797	-0.768	***
5766.PC4	-0.772	0.031	-24.83	0.000	-0.833	-0.711	***
5801.PC4	-0.808	0.009	-93.01	0.000	-0.825	-0.791	***
5802.PC4	-0.912	0.010	-93.41	0.000	-0.932	-0.893	***
5803.PC4	-0.893	0.008	-106.84	0.000	-0.909	-0.876	***
5804.PC4	-0.842	0.018	-46.90	0.000	-0.877	-0.806	***
5807.PC4	-0.873	0.018	-48.44	0.000	-0.908	-0.837	***
5808.PC4	-0.959	0.029	-33.51	0.000	-1.015	-0.903	***
5809.PC4	-0.830	0.018	-46.65	0.000	-0.865	-0.795	***
5811.PC4	-0.891	0.045	-19.79	0.000	-0.979	-0.803	***
5812.PC4	-0.749	0.055	-13.62	0.000	-0.857	-0.641	***
5813.PC4	-0.728	0.023	-31.83	0.000	-0.772	-0.683	***
5814.PC4	-1.024	0.045	-22.73	0.000	-1.112	-0.936	***
5815.PC4	-0.848	0.024	-35.02	0.000	-0.895	-0.800	***
5816.PC4	-0.979	0.071	-13.80	0.000	-1.118	-0.840	***
5817.PC4	-0.814	0.055	-14.80	0.000	-0.922	-0.706	***
5871.PC4	-0.939	0.037	-25.72	0.000	-1.010	-0.867	***
5872.PC4	-0.960	0.034	-28.43	0.000	-1.026	-0.893	***
5961.PC4	-0.819	0.010	-81.41	0.000	-0.839	-0.799	***
5962.PC4	-0.900	0.029	-31.05	0.000	-0.957	-0.843	***
5963.PC4	-0.798	0.024	-32.98	0.000	-0.845	-0.751	***
5964.PC4	-0.870	0.032	-27.56	0.000	-0.932	-0.809	***
5966.PC4	-0.959	0.048	-19.84	0.000	-1.053	-0.864	***
5971.PC4	-0.974	0.014	-69.60	0.000	-1.002	-0.947	***
5973.PC4	-0.961	0.027	-35.23	0.000	-1.014	-0.907	***
6041.PC4	-0.864	0.008	-115.11	0.000	-0.879	-0.850	***
6042.PC4	-0.982	0.009	-114.74	0.000	-0.999	-0.966	***
6043.PC4	-1.093	0.008	-134.37	0.000	-1.109	-1.077	***
6044.PC4	-1.168	0.016	-73.93	0.000	-1.199	-1.138	***
6045.PC4	-1.052	0.010	-109.93	0.000	-1.071	-1.033	***
6049.PC4	-0.938	0.009	-104.44	0.000	-0.955	-0.920	***
6121.PC4	-1.000	0.017	-57.16	0.000	-1.034	-0.966	***
6122.PC4	-1.039	0.024	-42.53	0.000	-1.086	-0.991	***
6123.PC4	-1.099	0.027	-40.29	0.000	-1.152	-1.046	***
6124.PC4	-1.018	0.052	-19.41	0.000	-1.121	-0.915	***
6125.PC4	-1.002	0.031	-32.23	0.000	-1.063	-0.941	***
6127.PC4	-1.030	0.033	-31.07	0.000	-1.095	-0.965	***
6131.PC4	-0.860	0.013	-64.68	0.000	-0.886	-0.834	***
6132.PC4	-0.999	0.012	-83.04	0.000	-1.023	-0.976	***
6133.PC4	-0.950	0.013	-71.39	0.000	-0.976	-0.924	***

6134.PC4	-1.130	0.020	-55.13	0.000	-1.170	-1.090	***
6135.PC4	-1.113	0.012	-89.56	0.000	-1.137	-1.089	***
6136.PC4	-1.023	0.012	-87.78	0.000	-1.046	-1.000	***
6137.PC4	-1.064	0.012	-89.92	0.000	-1.088	-1.041	***
6141.PC4	-0.980	0.023	-42.21	0.000	-1.025	-0.934	***
6142.PC4	-1.064	0.039	-27.23	0.000	-1.141	-0.987	***
6143.PC4	-0.909	0.045	-20.19	0.000	-0.997	-0.821	***
6151.PC4	-0.946	0.017	-56.84	0.000	-0.978	-0.913	***
6161.PC4	-1.097	0.018	-61.96	0.000	-1.132	-1.062	***
6162.PC4	-1.108	0.016	-69.70	0.000	-1.139	-1.077	***
6163.PC4	-1.185	0.012	-96.75	0.000	-1.209	-1.161	***
6164.PC4	-0.989	0.017	-57.91	0.000	-1.023	-0.956	***
6165.PC4	-1.037	0.017	-60.71	0.000	-1.070	-1.003	***
6166.PC4	-1.086	0.017	-62.61	0.000	-1.120	-1.052	***
6211.PC4	-0.449	0.012	-38.03	0.000	-0.472	-0.426	***
6212.PC4	-0.401	0.011	-35.23	0.000	-0.423	-0.378	***
6213.PC4	-0.561	0.014	-38.94	0.000	-0.589	-0.533	***
6214.PC4	-0.745	0.018	-41.74	0.000	-0.780	-0.710	***
6215.PC4	-0.834	0.011	-73.52	0.000	-0.856	-0.811	***
6216.PC4	-0.753	0.012	-63.67	0.000	-0.776	-0.730	***
6217.PC4	-0.722	0.013	-57.48	0.000	-0.747	-0.697	***
6218.PC4	-0.821	0.016	-52.96	0.000	-0.851	-0.791	***
6219.PC4	-0.817	0.036	-22.85	0.000	-0.887	-0.747	***
6221.PC4	-0.506	0.011	-47.13	0.000	-0.527	-0.485	***
6222.PC4	-0.891	0.019	-47.89	0.000	-0.927	-0.854	***
6223.PC4	-0.910	0.022	-41.64	0.000	-0.953	-0.868	***
6224.PC4	-0.740	0.012	-60.28	0.000	-0.764	-0.716	***
6225.PC4	-0.706	0.015	-46.86	0.000	-0.735	-0.676	***
6226.PC4	-0.714	0.010	-72.62	0.000	-0.733	-0.695	***
6227.PC4	-0.801	0.011	-71.53	0.000	-0.823	-0.779	***
6228.PC4	-0.826	0.010	-80.94	0.000	-0.846	-0.806	***
6229.PC4	-0.729	0.012	-58.73	0.000	-0.754	-0.705	***
6511.PC4	-0.525	0.008	-67.83	0.000	-0.540	-0.509	***
6512.PC4	-0.519	0.008	-62.87	0.000	-0.535	-0.503	***
6521.PC4	-0.486	0.008	-62.48	0.000	-0.501	-0.471	***
6522.PC4	-0.418	0.009	-45.79	0.000	-0.436	-0.400	***
6523.PC4	-0.443	0.008	-53.32	0.000	-0.459	-0.427	***
6524.PC4	-0.452	0.008	-57.31	0.000	-0.468	-0.437	***
6525.PC4	-0.525	0.008	-65.21	0.000	-0.541	-0.509	***
6531.PC4	-0.542	0.007	-72.57	0.000	-0.557	-0.527	***
6532.PC4	-0.648	0.008	-77.62	0.000	-0.664	-0.631	***
6533.PC4	-0.626	0.007	-85.86	0.000	-0.640	-0.611	***
6534.PC4	-0.694	0.013	-52.52	0.000	-0.720	-0.668	***
6535.PC4	-0.767	0.009	-90.14	0.000	-0.783	-0.750	***
6536.PC4	-0.766	0.011	-71.89	0.000	-0.787	-0.745	***
6537.PC4	-0.835	0.008	-104.24	0.000	-0.851	-0.820	***
6538.PC4	-0.848	0.008	-105.77	0.000	-0.864	-0.833	***
6541.PC4	-0.651	0.008	-79.20	0.000	-0.667	-0.635	***
6542.PC4	-0.663	0.008	-83.88	0.000	-0.678	-0.647	***
6543.PC4	-0.637	0.008	-84.14	0.000	-0.652	-0.623	***
6544.PC4	-0.805	0.009	-88.23	0.000	-0.823	-0.787	***
6545.PC4	-0.889	0.009	-97.80	0.000	-0.906	-0.871	***
6546.PC4	-0.871	0.008	-115.60	0.000	-0.885	-0.856	***
6663.PC4	-0.729	0.009	-82.77	0.000	-0.746	-0.711	***
6811.PC4	-0.646	0.009	-70.36	0.000	-0.664	-0.628	***
6812.PC4	-0.694	0.011	-65.60	0.000	-0.715	-0.673	***
6813.PC4	-0.558	0.008	-66.15	0.000	-0.575	-0.542	***
6814.PC4	-0.528	0.008	-68.57	0.000	-0.543	-0.513	***
6815.PC4	-0.539	0.011	-49.84	0.000	-0.560	-0.518	***
6816.PC4	-0.479	0.016	-29.41	0.000	-0.511	-0.447	***
6821.PC4	-0.686	0.007	-91.50	0.000	-0.700	-0.671	***
6822.PC4	-0.782	0.008	-92.87	0.000	-0.798	-0.765	***

6823.PC4	-0.742	0.009	-78.22	0.000	-0.760	-0.723	***
6824.PC4	-0.670	0.007	-97.09	0.000	-0.683	-0.656	***
6825.PC4	-0.834	0.008	-106.33	0.000	-0.850	-0.819	***
6826.PC4	-0.888	0.008	-114.90	0.000	-0.903	-0.872	***
6827.PC4	-0.890	0.122	-7.27	0.000	-1.130	-0.650	***
6828.PC4	-0.748	0.007	-105.20	0.000	-0.762	-0.734	***
6831.PC4	-0.911	0.011	-82.53	0.000	-0.932	-0.889	***
6832.PC4	-0.949	0.010	-94.58	0.000	-0.969	-0.929	***
6833.PC4	-0.965	0.008	-118.46	0.000	-0.981	-0.949	***
6834.PC4	-0.905	0.015	-60.56	0.000	-0.934	-0.875	***
6835.PC4	-0.895	0.010	-92.50	0.000	-0.914	-0.876	***
6836.PC4	-0.908	0.007	-129.53	0.000	-0.922	-0.895	***
6841.PC4	-0.938	0.011	-87.86	0.000	-0.959	-0.917	***
6842.PC4	-0.744	0.016	-46.22	0.000	-0.776	-0.713	***
6843.PC4	-0.895	0.008	-114.62	0.000	-0.910	-0.880	***
6844.PC4	-0.878	0.010	-91.42	0.000	-0.897	-0.859	***
6845.PC4	-0.906	0.008	-110.08	0.000	-0.922	-0.890	***
6846.PC4	-0.862	0.012	-71.69	0.000	-0.886	-0.839	***
7001.PC4	-0.709	0.011	-67.34	0.000	-0.730	-0.689	***
7002.PC4	-0.868	0.010	-88.19	0.000	-0.888	-0.849	***
7003.PC4	-0.778	0.012	-64.42	0.000	-0.801	-0.754	***
7004.PC4	-0.780	0.013	-61.55	0.000	-0.805	-0.756	***
7005.PC4	-0.738	0.045	-16.39	0.000	-0.826	-0.649	***
7006.PC4	-0.868	0.008	-104.23	0.000	-0.884	-0.852	***
7007.PC4	-0.910	0.009	-106.55	0.000	-0.926	-0.893	***
7008.PC4	-0.771	0.026	-30.13	0.000	-0.821	-0.721	***
7009.PC4	-0.777	0.011	-70.72	0.000	-0.798	-0.755	***
7011.PC4	-0.924	0.011	-86.12	0.000	-0.945	-0.903	***
7031.PC4	-0.858	0.010	-88.13	0.000	-0.877	-0.839	***
7151.PC4	-0.913	0.010	-89.82	0.000	-0.933	-0.893	***
7152.PC4	-0.893	0.012	-74.95	0.000	-0.916	-0.869	***
7156.PC4	-0.796	0.020	-39.97	0.000	-0.835	-0.757	***
7157.PC4	-0.782	0.036	-21.87	0.000	-0.852	-0.712	***
7161.PC4	-0.934	0.009	-100.87	0.000	-0.952	-0.916	***
7165.PC4	-0.862	0.028	-30.88	0.000	-0.917	-0.808	***
7201.PC4	-0.749	0.008	-90.91	0.000	-0.765	-0.732	***
7202.PC4	-0.493	0.100	-4.93	0.000	-0.689	-0.297	***
7203.PC4	-0.818	0.009	-91.39	0.000	-0.836	-0.801	***
7204.PC4	-0.830	0.008	-104.67	0.000	-0.845	-0.814	***
7205.PC4	-0.920	0.013	-72.08	0.000	-0.945	-0.895	***
7206.PC4	-0.865	0.008	-103.43	0.000	-0.881	-0.849	***
7207.PC4	-0.904	0.008	-119.28	0.000	-0.919	-0.889	***
7231.PC4	-0.691	0.009	-73.95	0.000	-0.709	-0.673	***
7232.PC4	-0.823	0.011	-77.08	0.000	-0.844	-0.802	***
7261.PC4	-0.835	0.008	-98.29	0.000	-0.852	-0.819	***
7271.PC4	-0.943	0.009	-103.72	0.000	-0.960	-0.925	***
7273.PC4	-0.856	0.026	-32.76	0.000	-0.907	-0.805	***
7274.PC4	-0.819	0.019	-42.95	0.000	-0.856	-0.782	***
7275.PC4	-0.979	0.024	-41.09	0.000	-1.026	-0.933	***
7601.PC4	-1.173	0.009	-130.49	0.000	-1.190	-1.155	***
7602.PC4	-1.000	0.009	-107.87	0.000	-1.019	-0.982	***
7603.PC4	-0.988	0.011	-88.53	0.000	-1.010	-0.966	***
7604.PC4	-1.084	0.009	-119.64	0.000	-1.102	-1.067	***
7605.PC4	-1.381	0.014	-99.04	0.000	-1.409	-1.354	***
7606.PC4	-1.162	0.009	-136.65	0.000	-1.179	-1.146	***
7607.PC4	-0.976	0.008	-120.26	0.000	-0.992	-0.960	***
7608.PC4	-1.061	0.008	-132.06	0.000	-1.077	-1.046	***
7609.PC4	-1.032	0.007	-143.11	0.000	-1.046	-1.018	***
7611.PC4	-0.857	0.019	-44.22	0.000	-0.895	-0.819	***
7627.PC4	-0.888	0.023	-38.27	0.000	-0.934	-0.843	***
7691.PC4	-0.957	0.012	-78.08	0.000	-0.981	-0.933	***
7692.PC4	-0.961	0.022	-43.93	0.000	-1.004	-0.918	***

7693.PC4	-0.962	0.025	-38.34	0.000	-1.011	-0.913	***
7694.PC4	-0.930	0.019	-49.02	0.000	-0.968	-0.893	***
7695.PC4	-0.913	0.022	-41.98	0.000	-0.955	-0.870	***
7696.PC4	-0.807	0.042	-19.04	0.000	-0.890	-0.724	***
7701.PC4	-0.934	0.007	-126.82	0.000	-0.948	-0.919	***
7702.PC4	-0.934	0.020	-47.39	0.000	-0.972	-0.895	***
7707.PC4	-0.877	0.011	-82.25	0.000	-0.898	-0.856	***
7771.PC4	-0.857	0.009	-91.72	0.000	-0.875	-0.838	***
7772.PC4	-0.924	0.008	-120.66	0.000	-0.939	-0.909	***
7773.PC4	-0.977	0.012	-78.57	0.000	-1.001	-0.952	***
7775.PC4	-0.981	0.015	-66.36	0.000	-1.010	-0.952	***
7776.PC4	-0.984	0.012	-82.63	0.000	-1.008	-0.961	***
7777.PC4	-0.970	0.021	-46.13	0.000	-1.011	-0.929	***
7778.PC4	-0.818	0.066	-12.47	0.000	-0.947	-0.690	***
7779.PC4	-1.880	0.078	-24.22	0.000	-2.032	-1.728	***
7781.PC4	-1.037	0.037	-28.40	0.000	-1.108	-0.965	***
7782.PC4	-1.034	0.015	-70.89	0.000	-1.062	-1.005	***
7783.PC4	-0.953	0.013	-72.32	0.000	-0.979	-0.928	***
7784.PC4	-0.853	0.032	-26.97	0.000	-0.915	-0.791	***
7786.PC4	-0.916	0.053	-17.43	0.000	-1.019	-0.813	***
7787.PC4	-1.074	0.071	-15.15	0.000	-1.213	-0.935	***
7788.PC4	-0.867	0.061	-14.11	0.000	-0.987	-0.747	***
7791.PC4	-0.863	0.030	-28.54	0.000	-0.922	-0.804	***
7792.PC4	-0.817	0.055	-14.84	0.000	-0.925	-0.709	***
7793.PC4	-0.823	0.035	-23.48	0.000	-0.892	-0.754	***
7794.PC4	-0.937	0.066	-14.27	0.000	-1.066	-0.808	***
7795.PC4	-0.860	0.087	-9.91	0.000	-1.030	-0.690	***
7796.PC4	-0.680	0.061	-11.06	0.000	-0.800	-0.559	***
7797.PC4	-0.949	0.035	-27.05	0.000	-1.018	-0.881	***
7798.PC4	-0.718	0.041	-17.43	0.000	-0.799	-0.638	***
7901.PC4	-0.856	0.013	-65.31	0.000	-0.881	-0.830	***
7902.PC4	-0.919	0.012	-78.93	0.000	-0.942	-0.896	***
7903.PC4	-0.738	0.052	-14.07	0.000	-0.841	-0.635	***
7904.PC4	-1.013	0.011	-90.44	0.000	-1.035	-0.991	***
7905.PC4	-1.012	0.011	-91.50	0.000	-1.033	-0.990	***
7906.PC4	-0.947	0.009	-104.60	0.000	-0.965	-0.930	***
7907.PC4	-0.905	0.018	-49.53	0.000	-0.941	-0.869	***
7908.PC4	-0.979	0.008	-119.50	0.000	-0.995	-0.963	***
7909.PC4	-0.916	0.018	-51.51	0.000	-0.951	-0.881	***
7911.PC4	-0.773	0.039	-19.75	0.000	-0.850	-0.696	***
7912.PC4	-0.973	0.025	-39.49	0.000	-1.021	-0.925	***
7913.PC4	-0.949	0.011	-89.59	0.000	-0.970	-0.928	***
7914.PC4	-0.944	0.015	-64.22	0.000	-0.973	-0.915	***
7915.PC4	-1.007	0.087	-11.61	0.000	-1.177	-0.837	***
7916.PC4	-0.950	0.013	-72.34	0.000	-0.975	-0.924	***
7918.PC4	-1.002	0.015	-68.67	0.000	-1.030	-0.973	***
7931.PC4	-0.813	0.029	-27.68	0.000	-0.871	-0.756	***
7933.PC4	-0.892	0.018	-50.10	0.000	-0.927	-0.857	***
7934.PC4	-0.808	0.035	-23.01	0.000	-0.876	-0.739	***
7936.PC4	-0.789	0.025	-32.02	0.000	-0.837	-0.741	***
8011.PC4	-0.576	0.008	-69.72	0.000	-0.592	-0.560	***
8012.PC4	-0.719	0.008	-94.81	0.000	-0.734	-0.705	***
8013.PC4	-0.708	0.012	-59.49	0.000	-0.731	-0.684	***
8014.PC4	-0.740	0.007	-103.29	0.000	-0.754	-0.726	***
8015.PC4	-0.790	0.010	-78.29	0.000	-0.810	-0.771	***
8016.PC4	-0.752	0.008	-96.69	0.000	-0.767	-0.737	***
8017.PC4	-0.706	0.008	-85.39	0.000	-0.722	-0.690	***
8019.PC4	-0.535	0.011	-46.73	0.000	-0.557	-0.512	***
8021.PC4	-0.729	0.009	-81.76	0.000	-0.747	-0.712	***
8022.PC4	-0.738	0.009	-81.84	0.000	-0.755	-0.720	***
8023.PC4	-0.653	0.008	-81.46	0.000	-0.668	-0.637	***
8024.PC4	-0.589	0.010	-57.99	0.000	-0.608	-0.569	***



8025.PC4	-0.658	0.025	-26.46	0.000	-0.706	-0.609	***
8026.PC4	-0.662	0.024	-27.80	0.000	-0.708	-0.615	***
8028.PC4	-0.720	0.050	-14.32	0.000	-0.818	-0.621	***
8031.PC4	-0.766	0.007	-102.28	0.000	-0.781	-0.752	***
8032.PC4	-0.696	0.008	-86.83	0.000	-0.712	-0.681	***
8033.PC4	-0.731	0.010	-70.11	0.000	-0.751	-0.710	***
8034.PC4	-0.475	0.021	-22.85	0.000	-0.515	-0.434	***
8035.PC4	-0.544	0.047	-11.67	0.000	-0.636	-0.453	***
8041.PC4	-0.519	0.031	-16.70	0.000	-0.580	-0.458	***
8042.PC4	-0.716	0.009	-76.69	0.000	-0.734	-0.698	***
8043.PC4	-0.819	0.007	-125.90	0.000	-0.832	-0.806	***
8044.PC4	-0.857	0.173	-4.95	0.000	-1.197	-0.518	***
8045.PC4	-0.614	0.173	-3.55	0.000	-0.954	-0.275	***
8211.PC4	-0.542	0.038	-14.20	0.000	-0.617	-0.467	***
8212.PC4	-1.064	0.014	-76.29	0.000	-1.091	-1.036	***
8219.PC4	-1.007	0.022	-45.35	0.000	-1.051	-0.964	***
8222.PC4	-0.700	0.048	-14.48	0.000	-0.794	-0.605	***
8223.PC4	-1.121	0.010	-116.01	0.000	-1.140	-1.102	***
8224.PC4	-1.076	0.011	-98.19	0.000	-1.098	-1.055	***
8225.PC4	-1.142	0.012	-95.29	0.000	-1.166	-1.119	***
8226.PC4	-1.138	0.012	-96.66	0.000	-1.161	-1.115	***
8231.PC4	-1.105	0.015	-75.31	0.000	-1.133	-1.076	***
8232.PC4	-1.074	0.015	-74.05	0.000	-1.103	-1.046	***
8239.PC4	-1.227	0.100	-12.27	0.000	-1.423	-1.031	***
8241.PC4	-0.896	0.019	-48.05	0.000	-0.933	-0.860	***
8242.PC4	-1.002	0.011	-87.69	0.000	-1.025	-0.980	***
8243.PC4	-1.050	0.011	-92.23	0.000	-1.072	-1.027	***
8244.PC4	-1.061	0.008	-125.95	0.000	-1.078	-1.045	***
8245.PC4	-1.041	0.010	-103.10	0.000	-1.061	-1.021	***
8911.PC4	-0.875	0.010	-87.99	0.000	-0.895	-0.856	***
8913.PC4	-0.989	0.009	-115.12	0.000	-1.006	-0.973	***
8914.PC4	-0.954	0.017	-55.88	0.000	-0.987	-0.920	***
8915.PC4	-1.038	0.009	-115.70	0.000	-1.055	-1.020	***
8916.PC4	-1.044	0.008	-123.16	0.000	-1.061	-1.028	***
8917.PC4	-0.951	0.011	-87.11	0.000	-0.972	-0.929	***
8918.PC4	-1.137	0.011	-107.14	0.000	-1.158	-1.116	***
8919.PC4	-0.906	0.021	-43.96	0.000	-0.947	-0.866	***
8921.PC4	-1.146	0.007	-161.91	0.000	-1.160	-1.132	***
8922.PC4	-1.181	0.010	-119.19	0.000	-1.201	-1.162	***
8923.PC4	-1.110	0.016	-70.71	0.000	-1.140	-1.079	***
8924.PC4	-1.138	0.012	-95.94	0.000	-1.161	-1.115	***
8925.PC4	-0.959	0.009	-104.86	0.000	-0.977	-0.941	***
8926.PC4	-1.072	0.008	-137.61	0.000	-1.088	-1.057	***
8927.PC4	-1.066	0.048	-22.05	0.000	-1.160	-0.971	***
8931.PC4	-1.010	0.009	-114.80	0.000	-1.028	-0.993	***
8932.PC4	-1.107	0.007	-148.18	0.000	-1.122	-1.093	***
8933.PC4	-1.140	0.009	-132.05	0.000	-1.157	-1.123	***
8934.PC4	-1.077	0.012	-91.69	0.000	-1.100	-1.054	***
8935.PC4	-1.009	0.008	-122.58	0.000	-1.025	-0.993	***
8936.PC4	-1.191	0.033	-35.90	0.000	-1.256	-1.126	***
8938.PC4	-0.759	0.071	-10.71	0.000	-0.898	-0.620	***
8939.PC4	-0.975	0.009	-105.34	0.000	-0.993	-0.957	***
9081.PC4	-0.925	0.024	-38.24	0.000	-0.973	-0.878	***
9082.PC4	-0.615	0.087	-7.09	0.000	-0.785	-0.445	***
9083.PC4	-0.864	0.050	-17.18	0.000	-0.962	-0.765	***
9084.PC4	-0.875	0.012	-74.82	0.000	-0.898	-0.852	***
9085.PC4	-0.858	0.122	-7.00	0.000	-1.098	-0.618	***
9086.PC4	-0.810	0.047	-17.40	0.000	-0.902	-0.719	***
9087.PC4	-0.821	0.122	-6.71	0.000	-1.061	-0.581	***
9088.PC4	-1.047	0.019	-53.78	0.000	-1.085	-1.009	***
9089.PC4	-1.093	0.024	-45.95	0.000	-1.139	-1.046	***
9301.PC4	-0.893	0.007	-125.19	0.000	-0.907	-0.879	***

9302.PC4	-0.924	0.010	-89.56	0.000	-0.944	-0.904	***
9304.PC4	-0.715	0.034	-21.15	0.000	-0.781	-0.649	***
9305.PC4	-0.765	0.030	-25.68	0.000	-0.823	-0.707	***
9306.PC4	-0.747	0.055	-13.58	0.000	-0.855	-0.639	***
9307.PC4	-0.769	0.045	-17.06	0.000	-0.858	-0.681	***
9311.PC4	-0.829	0.018	-46.95	0.000	-0.864	-0.795	***
9312.PC4	-0.822	0.016	-50.32	0.000	-0.854	-0.790	***
9313.PC4	-0.771	0.045	-17.11	0.000	-0.860	-0.683	***
9314.PC4	-0.691	0.050	-13.73	0.000	-0.790	-0.592	***
9315.PC4	-0.798	0.028	-28.90	0.000	-0.852	-0.744	***
9321.PC4	-0.834	0.009	-95.64	0.000	-0.851	-0.817	***
9331.PC4	-0.986	0.009	-104.87	0.000	-1.004	-0.968	***
9333.PC4	-0.832	0.034	-24.14	0.000	-0.900	-0.765	***
9334.PC4	-0.779	0.045	-17.29	0.000	-0.868	-0.691	***
9335.PC4	-0.796	0.040	-19.81	0.000	-0.875	-0.717	***
9336.PC4	-0.990	0.052	-18.85	0.000	-1.092	-0.887	***
9337.PC4	-0.763	0.048	-15.76	0.000	-0.857	-0.668	***
9341.PC4	-1.100	0.016	-69.36	0.000	-1.131	-1.069	***
9342.PC4	-0.931	0.019	-47.98	0.000	-0.969	-0.893	***
9343.PC4	-0.802	0.037	-21.48	0.000	-0.875	-0.729	***
9401.PC4	-0.829	0.008	-98.68	0.000	-0.846	-0.813	***
9402.PC4	-0.996	0.008	-129.59	0.000	-1.011	-0.981	***
9403.PC4	-1.025	0.007	-151.75	0.000	-1.038	-1.012	***
9404.PC4	-0.990	0.008	-124.76	0.000	-1.005	-0.974	***
9405.PC4	-1.007	0.008	-126.77	0.000	-1.023	-0.992	***
9406.PC4	-1.037	0.007	-144.97	0.000	-1.051	-1.023	***
9407.PC4	-1.093	0.008	-142.32	0.000	-1.108	-1.078	***
9408.PC4	-1.033	0.008	-135.46	0.000	-1.048	-1.018	***
9409.PC4	-0.783	0.033	-23.59	0.000	-0.848	-0.718	***
9486.PC4	-0.690	0.122	-5.63	0.000	-0.930	-0.450	***
9487.PC4	-0.810	0.052	-15.43	0.000	-0.913	-0.707	***
9488.PC4	-0.828	0.078	-10.67	0.000	-0.980	-0.676	***
9489.PC4	-0.876	0.087	-10.10	0.000	-1.046	-0.706	***
9492.PC4	-0.813	0.042	-19.17	0.000	-0.896	-0.729	***
9541.PC4	-1.079	0.012	-86.67	0.000	-1.103	-1.054	***
9545.PC4	-1.230	0.021	-58.11	0.000	-1.271	-1.189	***
9551.PC4	-1.087	0.013	-86.03	0.000	-1.112	-1.062	***
9561.PC4	-1.141	0.008	-140.76	0.000	-1.157	-1.125	***
9563.PC4	-1.184	0.019	-62.34	0.000	-1.221	-1.147	***
9711.PC4	-0.589	0.008	-70.98	0.000	-0.605	-0.573	***
9712.PC4	-0.603	0.009	-69.90	0.000	-0.620	-0.586	***
9713.PC4	-0.785	0.007	-116.53	0.000	-0.798	-0.772	***
9714.PC4	-0.746	0.009	-86.34	0.000	-0.762	-0.729	***
9715.PC4	-0.790	0.012	-65.69	0.000	-0.813	-0.766	***
9716.PC4	-0.806	0.020	-40.74	0.000	-0.845	-0.767	***
9717.PC4	-0.645	0.010	-64.56	0.000	-0.665	-0.626	***
9718.PC4	-0.682	0.008	-88.01	0.000	-0.698	-0.667	***
9721.PC4	-0.768	0.007	-116.96	0.000	-0.781	-0.755	***
9722.PC4	-0.718	0.007	-104.71	0.000	-0.731	-0.704	***
9723.PC4	-0.749	0.010	-74.06	0.000	-0.769	-0.729	***
9724.PC4	-0.694	0.008	-89.61	0.000	-0.709	-0.678	***
9725.PC4	-0.711	0.007	-96.32	0.000	-0.725	-0.696	***
9726.PC4	-0.717	0.008	-91.22	0.000	-0.733	-0.702	***
9727.PC4	-0.758	0.008	-99.00	0.000	-0.773	-0.743	***
9728.PC4	-0.760	0.007	-109.97	0.000	-0.773	-0.746	***
9731.PC4	-0.870	0.009	-98.38	0.000	-0.888	-0.853	***
9732.PC4	-1.030	0.008	-128.69	0.000	-1.046	-1.014	***
9733.PC4	-1.010	0.011	-92.31	0.000	-1.032	-0.989	***
9734.PC4	-0.893	0.009	-97.45	0.000	-0.911	-0.875	***
9735.PC4	-0.786	0.031	-25.67	0.000	-0.846	-0.726	***
9736.PC4	-1.085	0.011	-102.66	0.000	-1.106	-1.064	***
9737.PC4	-1.041	0.011	-94.75	0.000	-1.063	-1.020	***

9738.PC4	-0.756	0.050	-15.04	0.000	-0.854	-0.657	***
9741.PC4	-0.805	0.012	-67.20	0.000	-0.829	-0.782	***
9742.PC4	-0.856	0.011	-78.47	0.000	-0.877	-0.834	***
9743.PC4	-0.967	0.012	-83.28	0.000	-0.990	-0.945	***
9744.PC4	-0.938	0.011	-85.19	0.000	-0.959	-0.916	***
9745.PC4	-0.942	0.016	-57.24	0.000	-0.974	-0.909	***
9746.PC4	-0.889	0.012	-76.02	0.000	-0.911	-0.866	***
9749.PC4	-1.244	0.173	-7.19	0.000	-1.584	-0.905	***

Kwartaaldummy

2005Q2	0.013	0.002	6.04	0.000	0.009	0.017	***
2005Q3	0.019	0.002	8.98	0.000	0.015	0.024	***
2005Q4	0.029	0.002	13.33	0.000	0.024	0.033	***
2006Q1	0.037	0.002	17.22	0.000	0.033	0.041	***
2006Q2	0.054	0.002	25.13	0.000	0.050	0.058	***
2006Q3	0.063	0.002	28.92	0.000	0.059	0.068	***
2006Q4	0.073	0.002	33.68	0.000	0.069	0.077	***
2007Q1	0.088	0.002	40.56	0.000	0.084	0.092	***
2007Q2	0.118	0.002	54.79	0.000	0.114	0.122	***
2007Q3	0.122	0.002	56.37	0.000	0.118	0.126	***
2007Q4	0.127	0.002	58.53	0.000	0.122	0.131	***
2008Q1	0.135	0.002	62.02	0.000	0.131	0.139	***
2008Q2	0.147	0.002	68.04	0.000	0.143	0.151	***
2008Q3	0.143	0.002	64.16	0.000	0.139	0.147	***
2008Q4	0.120	0.002	49.96	0.000	0.115	0.125	***
2009Q1	0.099	0.002	40.08	0.000	0.094	0.104	***
2009Q2	0.107	0.002	45.52	0.000	0.102	0.111	***
2009Q3	0.100	0.002	42.55	0.000	0.096	0.105	***
2009Q4	0.098	0.002	42.13	0.000	0.093	0.103	***
2010Q1	0.095	0.002	40.21	0.000	0.090	0.100	***
2010Q2	0.107	0.002	44.87	0.000	0.102	0.111	***
2010Q3	0.103	0.002	42.39	0.000	0.098	0.108	***
2010Q4	0.106	0.002	45.72	0.000	0.102	0.111	***
2011Q1	0.101	0.002	41.13	0.000	0.096	0.106	***
2011Q2	0.101	0.002	41.74	0.000	0.097	0.106	***
2011Q3	0.089	0.002	36.95	0.000	0.085	0.094	***
2011Q4	0.072	0.002	29.01	0.000	0.067	0.076	***
2012Q1	0.049	0.003	19.26	0.000	0.044	0.054	***
2012Q2	0.040	0.002	16.34	0.000	0.035	0.045	***
2012Q3	0.021	0.003	8.30	0.000	0.016	0.026	***
2012Q4	0.012	0.002	5.03	0.000	0.007	0.016	***
2013Q1	-0.018	0.003	-6.28	0.000	-0.024	-0.012	***
2013Q2	-0.009	0.002	-3.76	0.000	-0.014	-0.005	***
2013Q3	-0.008	0.002	-3.22	0.001	-0.013	-0.003	***
2013Q4	-0.010	0.002	-3.96	0.000	-0.014	-0.005	***
2014Q1	0.000	0.002	-0.11	0.909	-0.005	0.005	
2014Q2	0.015	0.002	6.30	0.000	0.010	0.019	***
2014Q3	0.021	0.002	9.00	0.000	0.017	0.026	***
2014Q4	0.034	0.002	15.24	0.000	0.030	0.039	***
2015Q1	0.046	0.002	19.54	0.000	0.042	0.051	***
2015Q2	0.066	0.002	29.85	0.000	0.062	0.070	***
2015Q3	0.076	0.002	33.34	0.000	0.071	0.080	***
2015Q4	0.086	0.002	39.18	0.000	0.081	0.090	***
2016Q1	0.100	0.002	43.18	0.000	0.095	0.105	***
2016Q2	0.135	0.002	60.60	0.000	0.130	0.139	***
2016Q3	0.137	0.002	59.15	0.000	0.132	0.141	***
2016Q4	0.161	0.002	71.94	0.000	0.156	0.165	***
2017Q1	0.188	0.002	79.89	0.000	0.184	0.193	***
2017Q2	0.221	0.002	95.45	0.000	0.216	0.225	***
2017Q3	0.249	0.002	104.94	0.000	0.244	0.254	***
2017Q4	0.272	0.003	108.07	0.000	0.267	0.277	***

Gevangenis binnen 300 meter	-0.031	0.004	-7.23	0.000	-0.039	-0.022	***
TBS-kliniek binnen 300 meter	-0.017	0.006	-2.84	0.004	-0.029	-0.005	***
Jeugd gevangenis Binnen 300 meter	-0.060	0.015	-4.02	0.000	-0.090	-0.031	***
Bouwperiode							
Onbekend	0.162	0.014	11.36	0.000	0.134	0.190	***
1500-1905	0.128	0.001	87.22	0.000	0.125	0.131	***
1906-1930	0.081	0.001	65.70	0.000	0.079	0.084	***
1931-1944	0.080	0.001	60.34	0.000	0.077	0.082	***
1945-1959	0.024	0.001	18.31	0.000	0.022	0.027	***
1960-1970	-0.027	0.001	-23.78	0.000	-0.030	-0.025	***
1981-1990	0.048	0.001	42.15	0.000	0.046	0.050	***
1991-2000	0.130	0.001	107.55	0.000	0.128	0.132	***
>2000	0.177	0.001	132.33	0.000	0.174	0.179	***
Soort woning							
Eenvoudig	-0.029	0.002	-16.79	0.000	-0.032	-0.025	***
Grachtenpand	0.136	0.006	22.01	0.000	0.124	0.148	***
Herenhuis	0.120	0.001	103.68	0.000	0.117	0.122	***
Woonboerderrij	0.267	0.004	65.70	0.000	0.259	0.275	***
Bungalow	0.215	0.002	97.19	0.000	0.210	0.219	***
Villa	0.316	0.002	163.46	0.000	0.312	0.320	***
Landhuis	0.358	0.005	65.76	0.000	0.347	0.369	***
Benedenwoning	0.000	0.001	-0.24	0.811	-0.003	0.002	
Bovenwoning	-0.098	0.001	-82.19	0.000	-0.101	-0.096	***
Maisonette	-0.104	0.002	-65.52	0.000	-0.107	-0.101	***
Portiekflat	-0.072	0.001	-61.66	0.000	-0.075	-0.070	***
Gallerijflat	-0.088	0.001	-64.41	0.000	-0.091	-0.086	***
Beneden- en bovenwoning (samen)	0.029	0.004	8.02	0.000	0.022	0.036	***
Log_ Woonoppervlak							
Aantal kamers	0.714	0.001	604.20	0.000	0.712	0.716	***
Aantal balkons	0.010	0.000	38.41	0.000	0.010	0.011	***
Aantal dakkapellen	0.010	0.001	16.32	0.000	0.008	0.011	***
Aantal dakterassen	0.014	0.001	18.12	0.000	0.012	0.015	***
Aantal bijkeukens	0.025	0.001	30.66	0.000	0.023	0.026	***
Aantal_badkamers	0.037	0.001	47.12	0.000	0.036	0.039	***
Aantal_badkamers	0.028	0.001	50.95	0.000	0.027	0.029	***
Soort parkeerplek							
Parkeerplaats	0.064	0.001	59.75	0.000	0.062	0.066	***
Carport zonder garage	0.091	0.001	74.71	0.000	0.089	0.094	***
Garage zonder carport	0.132	0.001	161.91	0.000	0.131	0.134	***
Garage en carport	0.148	0.003	56.69	0.000	0.143	0.153	***
Garage (meer auto's)	0.182	0.002	98.72	0.000	0.178	0.185	***
Tuinligging							
Noord	-0.050	0.003	-19.37	0.000	-0.055	-0.045	***
Noord-oost	-0.035	0.003	-13.94	0.000	-0.040	-0.030	***
Oost	-0.045	0.002	-18.01	0.000	-0.050	-0.040	***
Zuid-oost	-0.029	0.002	-11.78	0.000	-0.034	-0.024	***
Zuid	-0.035	0.002	-14.38	0.000	-0.039	-0.030	***
Zuid-west	-0.022	0.002	-8.99	0.000	-0.027	-0.017	***
West	-0.038	0.002	-15.37	0.000	-0.042	-0.033	***
Noord-west	-0.031	0.003	-12.43	0.000	-0.036	-0.026	***

Tuinafwerking							
Verwaarloosd	-0.002	0.004	-0.48	0.631	-0.010	0.006	
Normaal	0.024	0.002	10.68	0.000	0.020	0.029	***
Fraai aangelegd	0.077	0.002	32.57	0.000	0.072	0.082	***
Verzorgd	0.054	0.002	23.26	0.000	0.050	0.059	***
Staat_binnen							
Matig tot slecht	0.008	0.008	0.96	0.336	-0.008	0.025	
Matig	0.077	0.005	15.06	0.000	0.067	0.087	***
Matig tot redelijk	0.085	0.006	14.85	0.000	0.074	0.096	***
Redelijk	0.134	0.005	27.65	0.000	0.124	0.143	***
Redelijk tot goed	0.159	0.005	32.15	0.000	0.149	0.168	***
Goed	0.237	0.005	49.27	0.000	0.227	0.246	***
Goed tot uitstekend	0.300	0.005	60.57	0.000	0.290	0.309	***
Uitstekend	0.317	0.005	65.44	0.000	0.308	0.327	***
Constant	9.121	0.009	1008.33	0.000	9.103	9.139	***
Mean dependent var		12.240	SD dependent var			0.480	
R-squared		0.871	Number of obs			566618.000	
F-test		3896.463	Prob > F			0.000	
Akaike crit. (AIC)		-379530.434	Bayesian crit. (BIC)			-368530.437	

\*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$

## Appendix 8: Regression results of model 2.

### Model 2.

log_Verkoopprijs	Coef.	St.Err.	t	P>  t	[95% Conf	Interval]	Sig
PC4							
1012.PC4	-0.104	0.011	-9.16	0.000	-0.126	-0.082	***
1013.PC4	-0.146	0.011	-13.80	0.000	-0.167	-0.126	***
1014.PC4	-0.242	0.049	-4.96	0.000	-0.338	-0.147	***
1015.PC4	0.020	0.011	1.88	0.060	-0.001	0.041	*
1016.PC4	0.064	0.011	5.94	0.000	0.043	0.085	***
1017.PC4	0.034	0.011	3.18	0.001	0.013	0.056	***
1021.PC4	-0.509	0.013	-39.60	0.000	-0.534	-0.484	***
1022.PC4	-0.442	0.017	-26.15	0.000	-0.475	-0.408	***
1023.PC4	-0.271	0.013	-20.45	0.000	-0.297	-0.245	***
1024.PC4	-0.607	0.011	-53.39	0.000	-0.630	-0.585	***
1025.PC4	-0.564	0.011	-51.20	0.000	-0.586	-0.543	***
1026.PC4	0.075	0.027	2.75	0.006	0.022	0.128	***
1027.PC4	-0.168	0.035	-4.76	0.000	-0.237	-0.099	***
1028.PC4	-0.167	0.029	-5.68	0.000	-0.225	-0.109	***
1031.PC4	-0.357	0.016	-21.76	0.000	-0.389	-0.325	***
1032.PC4	-0.509	0.013	-39.45	0.000	-0.534	-0.484	***
1033.PC4	-0.578	0.011	-51.14	0.000	-0.601	-0.556	***
1034.PC4	-0.609	0.012	-52.44	0.000	-0.632	-0.587	***
1035.PC4	-0.587	0.011	-51.11	0.000	-0.609	-0.564	***
1036.PC4	-0.683	0.030	-22.48	0.000	-0.743	-0.623	***
1041.PC4	-0.526	0.179	-2.94	0.003	-0.877	-0.175	***
1051.PC4	-0.203	0.011	-19.14	0.000	-0.224	-0.183	***
1052.PC4	-0.154	0.011	-14.28	0.000	-0.175	-0.133	***
1053.PC4	-0.151	0.011	-14.28	0.000	-0.171	-0.130	***
1054.PC4	-0.033	0.011	-3.10	0.002	-0.053	-0.012	***
1055.PC4	-0.383	0.011	-36.45	0.000	-0.404	-0.363	***
1056.PC4	-0.282	0.011	-26.79	0.000	-0.303	-0.261	***
1057.PC4	-0.267	0.011	-24.82	0.000	-0.289	-0.246	***
1058.PC4	-0.182	0.011	-17.25	0.000	-0.203	-0.162	***
1059.PC4	-0.118	0.013	-8.86	0.000	-0.144	-0.092	***
1060.PC4	-0.948	0.045	-21.29	0.000	-1.035	-0.861	***
1061.PC4	-0.584	0.013	-44.28	0.000	-0.609	-0.558	***
1062.PC4	-0.689	0.027	-25.73	0.000	-0.741	-0.636	***
1063.PC4	-0.571	0.012	-45.76	0.000	-0.595	-0.547	***
1064.PC4	-0.658	0.017	-39.47	0.000	-0.691	-0.625	***
1067.PC4	-0.653	0.014	-46.55	0.000	-0.681	-0.626	***
1071.PC4	0.189	0.011	17.41	0.000	0.168	0.211	***
1072.PC4	-0.080	0.011	-7.48	0.000	-0.101	-0.059	***
1073.PC4	-0.090	0.014	-6.35	0.000	-0.118	-0.063	***
1075.PC4	0.058	0.011	5.27	0.000	0.036	0.079	***
1076.PC4	-0.081	0.011	-7.28	0.000	-0.103	-0.059	***
1077.PC4	0.143	0.011	13.05	0.000	0.121	0.164	***
1078.PC4	0.012	0.013	0.95	0.340	-0.013	0.038	
1081.PC4	-0.338	0.018	-19.25	0.000	-0.373	-0.304	***
1082.PC4	-0.317	0.011	-29.11	0.000	-0.338	-0.296	***
1083.PC4	-0.354	0.014	-24.41	0.000	-0.382	-0.325	***
1086.PC4	-0.489	0.051	-9.66	0.000	-0.588	-0.390	***
1087.PC4	-0.499	0.011	-44.39	0.000	-0.521	-0.477	***
1102.PC4	-0.861	0.013	-67.93	0.000	-0.886	-0.836	***
1103.PC4	-0.878	0.018	-48.93	0.000	-0.914	-0.843	***
1104.PC4	-0.848	0.013	-67.06	0.000	-0.873	-0.823	***
1106.PC4	-0.781	0.011	-68.54	0.000	-0.803	-0.758	***
1107.PC4	-0.772	0.012	-64.53	0.000	-0.796	-0.749	***
1108.PC4	-0.791	0.012	-63.30	0.000	-0.816	-0.767	***
1109.PC4	-0.580	0.018	-32.38	0.000	-0.615	-0.545	***

1309.PC4	-0.920	0.081	-11.42	0.000	-1.078	-0.762	***
1311.PC4	-1.008	0.013	-80.50	0.000	-1.033	-0.984	***
1312.PC4	-0.951	0.012	-81.64	0.000	-0.974	-0.928	***
1313.PC4	-1.012	0.013	-78.17	0.000	-1.038	-0.987	***
1314.PC4	-0.968	0.013	-76.08	0.000	-0.993	-0.943	***
1315.PC4	-0.874	0.013	-69.09	0.000	-0.898	-0.849	***
1316.PC4	-0.939	0.013	-74.35	0.000	-0.964	-0.914	***
1317.PC4	-1.006	0.013	-75.97	0.000	-1.032	-0.980	***
1318.PC4	-1.043	0.012	-90.59	0.000	-1.065	-1.020	***
1319.PC4	-1.020	0.014	-74.15	0.000	-1.047	-0.993	***
1321.PC4	-1.016	0.011	-88.76	0.000	-1.039	-0.994	***
1323.PC4	-0.962	0.012	-79.31	0.000	-0.985	-0.938	***
1324.PC4	-1.005	0.011	-88.74	0.000	-1.027	-0.983	***
1325.PC4	-0.974	0.011	-86.01	0.000	-0.996	-0.952	***
1326.PC4	-1.042	0.011	-91.75	0.000	-1.065	-1.020	***
1328.PC4	-1.069	0.011	-95.48	0.000	-1.091	-1.047	***
1331.PC4	-0.204	0.179	-1.14	0.254	-0.555	0.147	
1333.PC4	-1.012	0.011	-90.45	0.000	-1.034	-0.990	***
1334.PC4	-0.997	0.019	-53.58	0.000	-1.034	-0.961	***
1335.PC4	-1.090	0.017	-62.98	0.000	-1.123	-1.056	***
1338.PC4	-1.067	0.013	-81.18	0.000	-1.093	-1.041	***
1343.PC4	-0.827	0.016	-50.22	0.000	-0.859	-0.795	***
1349.PC4	-0.707	0.041	-17.14	0.000	-0.788	-0.627	***
1351.PC4	-0.930	0.015	-60.79	0.000	-0.960	-0.900	***
1352.PC4	-0.929	0.016	-57.67	0.000	-0.960	-0.897	***
1353.PC4	-0.922	0.014	-65.83	0.000	-0.950	-0.895	***
1354.PC4	-0.954	0.015	-63.38	0.000	-0.983	-0.924	***
1355.PC4	-0.931	0.015	-62.17	0.000	-0.960	-0.901	***
1356.PC4	-0.960	0.016	-60.06	0.000	-0.991	-0.928	***
1357.PC4	-0.860	0.013	-66.74	0.000	-0.885	-0.834	***
1358.PC4	-0.781	0.032	-24.15	0.000	-0.845	-0.718	***
1359.PC4	-0.855	0.016	-54.70	0.000	-0.885	-0.824	***
1361.PC4	-0.488	0.029	-16.93	0.000	-0.544	-0.431	***
1363.PC4	-0.941	0.014	-66.36	0.000	-0.969	-0.913	***
1501.PC4	-0.807	0.014	-57.27	0.000	-0.835	-0.780	***
1502.PC4	-0.823	0.014	-58.75	0.000	-0.850	-0.795	***
1503.PC4	-0.842	0.012	-69.44	0.000	-0.866	-0.818	***
1504.PC4	-0.773	0.013	-57.99	0.000	-0.799	-0.747	***
1505.PC4	-0.833	0.017	-50.33	0.000	-0.865	-0.800	***
1506.PC4	-0.749	0.012	-60.51	0.000	-0.773	-0.724	***
1507.PC4	-0.719	0.013	-54.04	0.000	-0.745	-0.693	***
1508.PC4	-0.754	0.014	-55.29	0.000	-0.780	-0.727	***
1509.PC4	-0.712	0.012	-57.88	0.000	-0.736	-0.688	***
1521.PC4	-0.801	0.011	-72.50	0.000	-0.823	-0.780	***
1525.PC4	-0.659	0.025	-26.32	0.000	-0.708	-0.610	***
1541.PC4	-0.722	0.013	-53.92	0.000	-0.748	-0.696	***
1544.PC4	-0.758	0.012	-60.86	0.000	-0.782	-0.734	***
1551.PC4	-0.690	0.017	-41.30	0.000	-0.723	-0.657	***
1561.PC4	-0.784	0.012	-65.63	0.000	-0.807	-0.760	***
1562.PC4	-0.741	0.012	-62.13	0.000	-0.764	-0.717	***
1566.PC4	-0.804	0.012	-69.09	0.000	-0.827	-0.781	***
1567.PC4	-0.859	0.013	-66.13	0.000	-0.884	-0.834	***
1621.PC4	-0.619	0.012	-50.70	0.000	-0.643	-0.595	***
1622.PC4	-0.928	0.012	-75.81	0.000	-0.952	-0.904	***
1623.PC4	-0.655	0.016	-41.00	0.000	-0.686	-0.624	***
1624.PC4	-0.727	0.014	-51.70	0.000	-0.754	-0.699	***
1625.PC4	-0.910	0.012	-74.72	0.000	-0.934	-0.886	***
1628.PC4	-0.999	0.011	-91.04	0.000	-1.021	-0.978	***
1689.PC4	-0.942	0.011	-83.43	0.000	-0.964	-0.920	***
1695.PC4	-0.836	0.015	-56.62	0.000	-0.864	-0.807	***
1701.PC4	-0.931	0.012	-78.94	0.000	-0.954	-0.908	***
1702.PC4	-0.921	0.012	-75.04	0.000	-0.946	-0.897	***

1703.PC4	-0.949	0.011	-84.07	0.000	-0.972	-0.927	***
1704.PC4	-0.908	0.012	-73.85	0.000	-0.933	-0.884	***
1705.PC4	-0.956	0.011	-88.31	0.000	-0.978	-0.935	***
2011.PC4	-0.388	0.011	-36.72	0.000	-0.409	-0.367	***
2012.PC4	-0.374	0.011	-34.97	0.000	-0.395	-0.353	***
2013.PC4	-0.508	0.011	-46.40	0.000	-0.530	-0.487	***
2014.PC4	-0.463	0.011	-40.65	0.000	-0.486	-0.441	***
2015.PC4	-0.300	0.012	-25.54	0.000	-0.323	-0.277	***
2019.PC4	-0.340	0.045	-7.63	0.000	-0.427	-0.252	***
2021.PC4	-0.605	0.011	-55.58	0.000	-0.626	-0.584	***
2022.PC4	-0.584	0.011	-52.63	0.000	-0.606	-0.562	***
2023.PC4	-0.392	0.011	-36.03	0.000	-0.413	-0.370	***
2024.PC4	-0.506	0.011	-46.14	0.000	-0.527	-0.484	***
2025.PC4	-0.621	0.011	-55.83	0.000	-0.643	-0.599	***
2026.PC4	-0.573	0.012	-47.65	0.000	-0.597	-0.550	***
2031.PC4	-0.526	0.018	-28.84	0.000	-0.562	-0.490	***
2032.PC4	-0.627	0.011	-55.20	0.000	-0.649	-0.605	***
2033.PC4	-0.661	0.012	-55.71	0.000	-0.684	-0.637	***
2034.PC4	-0.724	0.011	-64.53	0.000	-0.746	-0.702	***
2035.PC4	-0.736	0.013	-55.94	0.000	-0.762	-0.710	***
2036.PC4	-0.699	0.011	-62.57	0.000	-0.721	-0.677	***
2037.PC4	-0.758	0.014	-53.22	0.000	-0.785	-0.730	***
2063.PC4	-0.494	0.024	-20.91	0.000	-0.540	-0.447	***
2215.PC4	-0.555	0.068	-8.13	0.000	-0.689	-0.422	***
2403.PC4	-0.279	0.179	-1.56	0.119	-0.630	0.072	
2407.PC4	-0.317	0.055	-5.77	0.000	-0.424	-0.209	***
2445.PC4	-0.538	0.022	-24.02	0.000	-0.582	-0.495	***
2471.PC4	-0.718	0.020	-36.21	0.000	-0.756	-0.679	***
2491.PC4	-0.690	0.041	-16.73	0.000	-0.771	-0.609	***
2492.PC4	-0.807	0.011	-71.32	0.000	-0.830	-0.785	***
2493.PC4	-0.754	0.013	-56.83	0.000	-0.780	-0.728	***
2495.PC4	-0.605	0.040	-15.02	0.000	-0.684	-0.526	***
2496.PC4	-0.784	0.012	-66.21	0.000	-0.808	-0.761	***
2497.PC4	-0.900	0.012	-76.26	0.000	-0.923	-0.877	***
2498.PC4	-0.724	0.014	-51.94	0.000	-0.751	-0.696	***
2511.PC4	-0.531	0.015	-35.77	0.000	-0.560	-0.502	***
2512.PC4	-0.732	0.012	-63.48	0.000	-0.755	-0.710	***
2513.PC4	-0.623	0.011	-54.21	0.000	-0.645	-0.600	***
2514.PC4	-0.281	0.012	-22.75	0.000	-0.305	-0.257	***
2515.PC4	-0.853	0.013	-65.28	0.000	-0.878	-0.827	***
2516.PC4	-1.076	0.014	-74.33	0.000	-1.104	-1.047	***
2517.PC4	-0.469	0.011	-42.96	0.000	-0.490	-0.448	***
2518.PC4	-0.576	0.011	-51.72	0.000	-0.598	-0.554	***
2521.PC4	-0.927	0.014	-67.21	0.000	-0.954	-0.900	***
2522.PC4	-1.137	0.011	-100.01	0.000	-1.160	-1.115	***
2523.PC4	-1.129	0.013	-87.57	0.000	-1.154	-1.104	***
2524.PC4	-1.101	0.015	-74.44	0.000	-1.130	-1.072	***
2525.PC4	-1.144	0.015	-76.75	0.000	-1.173	-1.115	***
2526.PC4	-0.982	0.014	-71.74	0.000	-1.009	-0.956	***
2531.PC4	-1.085	0.013	-85.61	0.000	-1.109	-1.060	***
2532.PC4	-0.977	0.019	-51.06	0.000	-1.015	-0.940	***
2533.PC4	-0.996	0.019	-52.81	0.000	-1.033	-0.959	***
2541.PC4	-1.069	0.012	-85.74	0.000	-1.093	-1.045	***
2542.PC4	-1.066	0.013	-83.10	0.000	-1.092	-1.041	***
2543.PC4	-0.952	0.015	-64.17	0.000	-0.981	-0.923	***
2544.PC4	-1.012	0.013	-80.10	0.000	-1.037	-0.987	***
2545.PC4	-0.941	0.012	-80.28	0.000	-0.964	-0.918	***
2546.PC4	-0.977	0.011	-87.46	0.000	-0.999	-0.955	***
2547.PC4	-0.938	0.011	-83.12	0.000	-0.960	-0.916	***
2548.PC4	-0.829	0.011	-74.93	0.000	-0.850	-0.807	***
2551.PC4	-0.807	0.011	-72.63	0.000	-0.828	-0.785	***
2552.PC4	-0.792	0.011	-71.85	0.000	-0.814	-0.770	***



2553.PC4	-0.760	0.012	-65.04	0.000	-0.783	-0.737	***
2554.PC4	-0.361	0.015	-23.34	0.000	-0.391	-0.331	***
2555.PC4	-0.707	0.011	-65.14	0.000	-0.728	-0.686	***
2561.PC4	-0.729	0.012	-62.59	0.000	-0.752	-0.706	***
2562.PC4	-0.803	0.012	-68.71	0.000	-0.826	-0.780	***
2563.PC4	-0.860	0.011	-79.14	0.000	-0.882	-0.839	***
2564.PC4	-0.744	0.011	-69.63	0.000	-0.765	-0.723	***
2565.PC4	-0.734	0.011	-68.95	0.000	-0.755	-0.713	***
2566.PC4	-0.359	0.011	-31.43	0.000	-0.381	-0.337	***
2571.PC4	-1.073	0.013	-84.79	0.000	-1.098	-1.048	***
2572.PC4	-1.210	0.016	-73.62	0.000	-1.242	-1.178	***
2573.PC4	-1.090	0.011	-98.77	0.000	-1.112	-1.068	***
2574.PC4	-1.050	0.011	-92.23	0.000	-1.073	-1.028	***
2581.PC4	-0.603	0.012	-49.30	0.000	-0.627	-0.579	***
2582.PC4	-0.350	0.011	-31.88	0.000	-0.371	-0.328	***
2583.PC4	-0.751	0.011	-65.55	0.000	-0.774	-0.729	***
2584.PC4	-0.563	0.012	-48.18	0.000	-0.586	-0.540	***
2585.PC4	-0.304	0.011	-26.93	0.000	-0.326	-0.282	***
2586.PC4	-0.527	0.011	-48.01	0.000	-0.549	-0.506	***
2587.PC4	-0.516	0.011	-45.95	0.000	-0.538	-0.494	***
2591.PC4	-0.864	0.012	-73.72	0.000	-0.887	-0.841	***
2592.PC4	-0.793	0.011	-69.08	0.000	-0.816	-0.771	***
2593.PC4	-0.705	0.011	-66.21	0.000	-0.726	-0.684	***
2594.PC4	-0.555	0.013	-41.83	0.000	-0.581	-0.529	***
2595.PC4	-0.673	0.011	-59.78	0.000	-0.695	-0.651	***
2596.PC4	-0.354	0.011	-31.85	0.000	-0.376	-0.332	***
2597.PC4	-0.447	0.011	-41.42	0.000	-0.469	-0.426	***
2711.PC4	-0.778	0.014	-55.51	0.000	-0.805	-0.750	***
2712.PC4	-0.719	0.012	-62.17	0.000	-0.741	-0.696	***
2713.PC4	-0.815	0.011	-71.86	0.000	-0.837	-0.793	***
2715.PC4	-0.927	0.012	-77.82	0.000	-0.950	-0.904	***
2716.PC4	-0.887	0.012	-76.85	0.000	-0.910	-0.864	***
2717.PC4	-0.828	0.012	-68.21	0.000	-0.852	-0.804	***
2718.PC4	-0.775	0.012	-65.94	0.000	-0.798	-0.752	***
2719.PC4	-0.818	0.011	-72.40	0.000	-0.840	-0.796	***
2721.PC4	-0.826	0.013	-65.49	0.000	-0.851	-0.802	***
2722.PC4	-0.806	0.013	-60.41	0.000	-0.832	-0.779	***
2723.PC4	-0.796	0.013	-62.53	0.000	-0.821	-0.771	***
2724.PC4	-0.788	0.012	-67.11	0.000	-0.811	-0.765	***
2725.PC4	-0.740	0.012	-59.77	0.000	-0.765	-0.716	***
2726.PC4	-0.763	0.012	-64.05	0.000	-0.786	-0.740	***
2727.PC4	-0.811	0.013	-63.49	0.000	-0.836	-0.786	***
2728.PC4	-0.818	0.012	-70.93	0.000	-0.841	-0.795	***
2729.PC4	-0.900	0.012	-78.03	0.000	-0.923	-0.877	***
2921.PC4	-0.786	0.016	-50.05	0.000	-0.817	-0.756	***
2922.PC4	-0.705	0.013	-56.17	0.000	-0.730	-0.681	***
2923.PC4	-0.715	0.013	-54.26	0.000	-0.741	-0.689	***
2924.PC4	-0.742	0.014	-51.57	0.000	-0.770	-0.714	***
2925.PC4	-0.790	0.013	-61.03	0.000	-0.816	-0.765	***
2926.PC4	-0.815	0.016	-51.12	0.000	-0.846	-0.784	***
3011.PC4	-0.628	0.011	-58.75	0.000	-0.649	-0.607	***
3012.PC4	-0.681	0.013	-52.77	0.000	-0.707	-0.656	***
3013.PC4	-0.771	0.016	-48.56	0.000	-0.802	-0.740	***
3014.PC4	-0.973	0.014	-69.00	0.000	-1.001	-0.946	***
3015.PC4	-0.719	0.014	-50.19	0.000	-0.747	-0.691	***
3016.PC4	-0.353	0.015	-23.88	0.000	-0.382	-0.324	***
3021.PC4	-0.856	0.011	-76.02	0.000	-0.879	-0.834	***
3022.PC4	-0.954	0.012	-77.17	0.000	-0.978	-0.930	***
3023.PC4	-0.812	0.013	-62.12	0.000	-0.838	-0.786	***
3024.PC4	-0.783	0.012	-64.52	0.000	-0.807	-0.760	***
3025.PC4	-0.980	0.015	-66.48	0.000	-1.009	-0.952	***
3026.PC4	-1.125	0.015	-73.42	0.000	-1.155	-1.095	***

3027.PC4	-1.107	0.013	-88.45	0.000	-1.131	-1.082	***
3028.PC4	-1.145	0.012	-99.28	0.000	-1.167	-1.122	***
3029.PC4	-1.142	0.026	-43.97	0.000	-1.193	-1.091	***
3031.PC4	-0.782	0.012	-67.95	0.000	-0.805	-0.760	***
3032.PC4	-0.833	0.012	-68.94	0.000	-0.857	-0.810	***
3033.PC4	-0.842	0.013	-64.02	0.000	-0.868	-0.816	***
3034.PC4	-0.870	0.014	-60.62	0.000	-0.898	-0.842	***
3035.PC4	-0.922	0.014	-65.34	0.000	-0.950	-0.894	***
3036.PC4	-1.001	0.013	-75.10	0.000	-1.027	-0.975	***
3037.PC4	-0.827	0.012	-70.79	0.000	-0.850	-0.804	***
3038.PC4	-0.929	0.011	-84.80	0.000	-0.951	-0.908	***
3039.PC4	-0.766	0.011	-72.06	0.000	-0.787	-0.745	***
3042.PC4	-0.964	0.012	-80.56	0.000	-0.987	-0.940	***
3043.PC4	-0.886	0.012	-76.60	0.000	-0.909	-0.864	***
3044.PC4	-0.669	0.074	-9.08	0.000	-0.813	-0.525	***
3045.PC4	-0.651	0.020	-33.09	0.000	-0.690	-0.613	***
3046.PC4	-0.665	0.035	-18.86	0.000	-0.734	-0.596	***
3047.PC4	-0.483	0.127	-3.81	0.000	-0.732	-0.235	***
3051.PC4	-0.789	0.011	-71.77	0.000	-0.810	-0.767	***
3052.PC4	-0.757	0.013	-59.43	0.000	-0.782	-0.732	***
3053.PC4	-0.711	0.011	-61.86	0.000	-0.733	-0.688	***
3054.PC4	-0.538	0.011	-47.25	0.000	-0.561	-0.516	***
3055.PC4	-0.457	0.011	-40.89	0.000	-0.478	-0.435	***
3056.PC4	-0.736	0.013	-57.38	0.000	-0.761	-0.711	***
3059.PC4	-0.723	0.012	-62.43	0.000	-0.746	-0.700	***
3061.PC4	-0.774	0.011	-71.75	0.000	-0.796	-0.753	***
3062.PC4	-0.483	0.011	-42.64	0.000	-0.506	-0.461	***
3063.PC4	-0.685	0.011	-60.35	0.000	-0.707	-0.662	***
3064.PC4	-0.948	0.016	-59.13	0.000	-0.980	-0.917	***
3065.PC4	-0.667	0.012	-54.24	0.000	-0.691	-0.643	***
3066.PC4	-0.774	0.012	-64.88	0.000	-0.797	-0.750	***
3067.PC4	-0.855	0.011	-78.72	0.000	-0.876	-0.833	***
3068.PC4	-0.872	0.011	-79.18	0.000	-0.894	-0.851	***
3069.PC4	-0.796	0.011	-71.62	0.000	-0.817	-0.774	***
3071.PC4	-0.798	0.011	-73.01	0.000	-0.819	-0.776	***
3072.PC4	-0.850	0.013	-66.72	0.000	-0.875	-0.825	***
3073.PC4	-1.128	0.012	-90.80	0.000	-1.153	-1.104	***
3074.PC4	-1.265	0.012	-101.42	0.000	-1.289	-1.240	***
3075.PC4	-0.994	0.014	-71.50	0.000	-1.021	-0.967	***
3076.PC4	-0.935	0.013	-74.60	0.000	-0.959	-0.910	***
3077.PC4	-0.930	0.012	-80.31	0.000	-0.953	-0.907	***
3078.PC4	-0.914	0.013	-68.78	0.000	-0.940	-0.888	***
3079.PC4	-0.933	0.012	-79.98	0.000	-0.956	-0.910	***
3081.PC4	-1.276	0.012	-103.28	0.000	-1.301	-1.252	***
3082.PC4	-1.148	0.012	-94.03	0.000	-1.172	-1.124	***
3083.PC4	-1.213	0.012	-103.78	0.000	-1.236	-1.190	***
3084.PC4	-0.738	0.031	-23.47	0.000	-0.800	-0.677	***
3085.PC4	-0.975	0.013	-77.47	0.000	-1.000	-0.951	***
3086.PC4	-1.097	0.013	-84.69	0.000	-1.123	-1.072	***
3087.PC4	-0.814	0.018	-45.55	0.000	-0.849	-0.779	***
3088.PC4	-0.624	0.127	-4.92	0.000	-0.872	-0.375	***
3089.PC4	-1.015	0.032	-31.86	0.000	-1.078	-0.953	***
3151.PC4	-0.706	0.017	-42.52	0.000	-0.738	-0.673	***
3161.PC4	-0.713	0.019	-37.02	0.000	-0.751	-0.675	***
3162.PC4	-0.785	0.013	-62.06	0.000	-0.810	-0.760	***
3171.PC4	-0.804	0.017	-47.63	0.000	-0.838	-0.771	***
3176.PC4	-0.765	0.015	-52.26	0.000	-0.793	-0.736	***
3191.PC4	-0.927	0.012	-77.42	0.000	-0.951	-0.904	***
3192.PC4	-0.968	0.014	-70.45	0.000	-0.995	-0.941	***
3193.PC4	-1.012	0.013	-80.32	0.000	-1.036	-0.987	***
3194.PC4	-0.949	0.012	-77.26	0.000	-0.974	-0.925	***
3195.PC4	-1.028	0.013	-76.75	0.000	-1.054	-1.002	***

3311.PC4	-0.841	0.011	-78.47	0.000	-0.862	-0.820	***
3312.PC4	-0.953	0.011	-85.77	0.000	-0.974	-0.931	***
3313.PC4	-1.009	0.012	-85.41	0.000	-1.032	-0.986	***
3314.PC4	-1.009	0.011	-92.04	0.000	-1.030	-0.987	***
3315.PC4	-0.908	0.011	-83.12	0.000	-0.929	-0.886	***
3316.PC4	-0.834	0.022	-37.77	0.000	-0.878	-0.791	***
3317.PC4	-0.995	0.011	-88.16	0.000	-1.017	-0.973	***
3318.PC4	-0.849	0.013	-63.01	0.000	-0.875	-0.822	***
3319.PC4	-0.708	0.012	-61.38	0.000	-0.730	-0.685	***
3328.PC4	-0.886	0.011	-81.92	0.000	-0.907	-0.865	***
3329.PC4	-0.647	0.018	-35.56	0.000	-0.683	-0.612	***
3431.PC4	-0.757	0.011	-66.50	0.000	-0.779	-0.734	***
3432.PC4	-0.768	0.012	-63.85	0.000	-0.792	-0.745	***
3433.PC4	-0.663	0.014	-46.75	0.000	-0.691	-0.635	***
3434.PC4	-0.723	0.012	-62.07	0.000	-0.746	-0.701	***
3435.PC4	-0.718	0.012	-60.83	0.000	-0.741	-0.695	***
3436.PC4	-0.747	0.012	-63.39	0.000	-0.770	-0.724	***
3437.PC4	-0.752	0.011	-68.27	0.000	-0.773	-0.730	***
3438.PC4	-0.763	0.012	-65.69	0.000	-0.785	-0.740	***
3439.PC4	-0.459	0.049	-9.39	0.000	-0.554	-0.363	***
3451.PC4	-0.632	0.011	-55.29	0.000	-0.654	-0.609	***
3452.PC4	-0.709	0.012	-60.98	0.000	-0.731	-0.686	***
3453.PC4	-0.779	0.011	-70.12	0.000	-0.800	-0.757	***
3454.PC4	-0.655	0.011	-58.81	0.000	-0.677	-0.634	***
3455.PC4	-0.493	0.027	-17.94	0.000	-0.547	-0.439	***
3511.PC4	-0.348	0.012	-27.91	0.000	-0.372	-0.323	***
3512.PC4	-0.276	0.012	-23.82	0.000	-0.298	-0.253	***
3513.PC4	-0.453	0.046	-9.89	0.000	-0.543	-0.363	***
3514.PC4	-0.342	0.011	-30.75	0.000	-0.363	-0.320	***
3515.PC4	-0.402	0.021	-18.99	0.000	-0.444	-0.361	***
3522.PC4	-0.520	0.014	-38.33	0.000	-0.546	-0.493	***
3523.PC4	-0.551	0.021	-26.06	0.000	-0.592	-0.509	***
3524.PC4	-0.604	0.012	-48.51	0.000	-0.629	-0.580	***
3525.PC4	-0.578	0.012	-46.51	0.000	-0.602	-0.553	***
3526.PC4	-0.749	0.012	-64.72	0.000	-0.772	-0.727	***
3527.PC4	-0.800	0.024	-32.81	0.000	-0.847	-0.752	***
3531.PC4	-0.477	0.026	-18.68	0.000	-0.527	-0.427	***
3533.PC4	-0.626	0.039	-15.87	0.000	-0.703	-0.549	***
3543.PC4	-0.774	0.014	-56.54	0.000	-0.800	-0.747	***
3544.PC4	-0.744	0.014	-51.72	0.000	-0.772	-0.716	***
3545.PC4	-0.220	0.127	-1.73	0.083	-0.468	0.029	*
3546.PC4	-0.834	0.090	-9.26	0.000	-1.011	-0.658	***
3566.PC4	-0.322	0.074	-4.37	0.000	-0.466	-0.178	***
3571.PC4	-0.427	0.012	-36.69	0.000	-0.450	-0.404	***
3572.PC4	-0.352	0.011	-33.04	0.000	-0.373	-0.331	***
3573.PC4	-0.603	0.013	-46.49	0.000	-0.628	-0.577	***
3581.PC4	-0.313	0.011	-27.60	0.000	-0.335	-0.291	***
3583.PC4	-0.180	0.019	-9.54	0.000	-0.217	-0.143	***
3584.PC4	-0.244	0.090	-2.71	0.007	-0.420	-0.068	***
3711.PC4	-0.487	0.018	-26.87	0.000	-0.523	-0.452	***
3734.PC4	-0.494	0.014	-34.95	0.000	-0.521	-0.466	***
4331.PC4	-0.824	0.011	-72.06	0.000	-0.847	-0.802	***
4332.PC4	-0.897	0.013	-70.81	0.000	-0.922	-0.873	***
4333.PC4	-0.812	0.013	-64.51	0.000	-0.836	-0.787	***
4334.PC4	-0.914	0.013	-68.93	0.000	-0.940	-0.888	***
4335.PC4	-0.957	0.012	-78.02	0.000	-0.981	-0.933	***
4336.PC4	-0.969	0.012	-80.12	0.000	-0.993	-0.946	***
4337.PC4	-1.031	0.013	-81.21	0.000	-1.056	-1.006	***
4338.PC4	-0.980	0.090	-10.89	0.000	-1.156	-0.804	***
4339.PC4	-1.042	0.020	-51.86	0.000	-1.081	-1.002	***
4341.PC4	-0.908	0.022	-40.93	0.000	-0.951	-0.864	***
4811.PC4	-0.647	0.011	-60.75	0.000	-0.668	-0.626	***

4812.PC4	-0.785	0.012	-64.87	0.000	-0.808	-0.761	***
4813.PC4	-0.719	0.014	-52.01	0.000	-0.746	-0.692	***
4814.PC4	-0.856	0.011	-75.71	0.000	-0.878	-0.833	***
4815.PC4	-0.743	0.013	-57.09	0.000	-0.769	-0.718	***
4816.PC4	-0.861	0.014	-62.44	0.000	-0.888	-0.834	***
4817.PC4	-0.787	0.011	-71.92	0.000	-0.809	-0.766	***
4818.PC4	-0.562	0.011	-51.29	0.000	-0.583	-0.540	***
4819.PC4	-0.623	0.013	-48.12	0.000	-0.648	-0.597	***
4822.PC4	-0.871	0.012	-75.14	0.000	-0.894	-0.849	***
4823.PC4	-0.864	0.011	-76.44	0.000	-0.886	-0.842	***
4824.PC4	-0.897	0.011	-79.47	0.000	-0.919	-0.875	***
4825.PC4	-0.763	0.051	-15.09	0.000	-0.863	-0.664	***
4826.PC4	-0.916	0.012	-79.67	0.000	-0.939	-0.894	***
4827.PC4	-0.856	0.014	-62.15	0.000	-0.883	-0.829	***
4834.PC4	-0.696	0.012	-58.88	0.000	-0.719	-0.673	***
4835.PC4	-0.556	0.016	-35.74	0.000	-0.586	-0.525	***
4836.PC4	-0.766	0.179	-4.27	0.000	-1.117	-0.415	***
4838.PC4	-0.599	0.038	-15.83	0.000	-0.674	-0.525	***
4839.PC4	-0.489	0.036	-13.65	0.000	-0.560	-0.419	***
4841.PC4	-0.675	0.011	-59.36	0.000	-0.698	-0.653	***
4847.PC4	-0.693	0.012	-56.74	0.000	-0.717	-0.669	***
4854.PC4	-0.653	0.018	-36.42	0.000	-0.688	-0.618	***
5011.PC4	-1.013	0.012	-82.22	0.000	-1.037	-0.989	***
5012.PC4	-0.965	0.014	-69.29	0.000	-0.993	-0.938	***
5013.PC4	-0.876	0.020	-44.66	0.000	-0.915	-0.838	***
5014.PC4	-0.973	0.011	-87.56	0.000	-0.995	-0.951	***
5015.PC4	-0.830	0.021	-38.94	0.000	-0.871	-0.788	***
5017.PC4	-0.801	0.013	-63.60	0.000	-0.825	-0.776	***
5018.PC4	-0.759	0.014	-53.45	0.000	-0.787	-0.731	***
5021.PC4	-0.952	0.011	-85.04	0.000	-0.974	-0.930	***
5022.PC4	-0.969	0.012	-78.15	0.000	-0.993	-0.944	***
5025.PC4	-0.969	0.011	-87.47	0.000	-0.991	-0.948	***
5026.PC4	-0.615	0.039	-15.91	0.000	-0.690	-0.539	***
5032.PC4	-0.730	0.012	-61.42	0.000	-0.753	-0.707	***
5035.PC4	-0.987	0.012	-84.64	0.000	-1.010	-0.964	***
5036.PC4	-0.937	0.013	-73.09	0.000	-0.962	-0.912	***
5037.PC4	-0.762	0.011	-68.11	0.000	-0.784	-0.740	***
5038.PC4	-0.820	0.011	-74.19	0.000	-0.842	-0.799	***
5041.PC4	-0.930	0.012	-80.12	0.000	-0.953	-0.907	***
5042.PC4	-0.892	0.011	-80.22	0.000	-0.914	-0.870	***
5043.PC4	-0.948	0.011	-82.50	0.000	-0.971	-0.926	***
5044.PC4	-0.879	0.013	-69.60	0.000	-0.904	-0.855	***
5045.PC4	-0.966	0.011	-89.98	0.000	-0.987	-0.945	***
5046.PC4	-0.991	0.011	-88.48	0.000	-1.013	-0.969	***
5047.PC4	-1.020	0.055	-18.58	0.000	-1.128	-0.912	***
5049.PC4	-0.986	0.014	-68.12	0.000	-1.014	-0.958	***
5056.PC4	-0.703	0.012	-60.49	0.000	-0.725	-0.680	***
5071.PC4	-0.713	0.013	-56.59	0.000	-0.738	-0.688	***
5261.PC4	-0.590	0.012	-50.17	0.000	-0.613	-0.567	***
5262.PC4	-0.658	0.011	-58.44	0.000	-0.680	-0.636	***
5263.PC4	-0.458	0.013	-34.94	0.000	-0.483	-0.432	***
5266.PC4	-0.583	0.027	-21.21	0.000	-0.637	-0.529	***
5361.PC4	-0.916	0.012	-78.48	0.000	-0.939	-0.893	***
5363.PC4	-0.881	0.024	-36.98	0.000	-0.928	-0.834	***
5364.PC4	-0.821	0.022	-37.65	0.000	-0.863	-0.778	***
5438.PC4	-0.886	0.025	-35.15	0.000	-0.936	-0.837	***
5611.PC4	-0.648	0.012	-53.40	0.000	-0.672	-0.624	***
5613.PC4	-0.851	0.012	-70.17	0.000	-0.875	-0.827	***
5614.PC4	-0.664	0.012	-53.31	0.000	-0.689	-0.640	***
5615.PC4	-0.629	0.013	-48.38	0.000	-0.654	-0.603	***
5631.PC4	-0.622	0.020	-31.80	0.000	-0.660	-0.583	***
5633.PC4	-0.900	0.127	-7.10	0.000	-1.149	-0.652	***

5641.PC4	-0.890	0.012	-72.33	0.000	-0.915	-0.866	***
5642.PC4	-0.904	0.012	-72.67	0.000	-0.929	-0.880	***
5643.PC4	-0.813	0.012	-70.05	0.000	-0.836	-0.790	***
5644.PC4	-0.696	0.012	-60.22	0.000	-0.718	-0.673	***
5645.PC4	-0.821	0.013	-61.62	0.000	-0.847	-0.795	***
5646.PC4	-0.695	0.016	-43.31	0.000	-0.726	-0.663	***
5647.PC4	-0.236	0.179	-1.32	0.188	-0.587	0.115	***
5653.PC4	-0.874	0.013	-68.33	0.000	-0.899	-0.849	***
5654.PC4	-0.935	0.012	-78.80	0.000	-0.958	-0.912	***
5655.PC4	-0.852	0.014	-61.92	0.000	-0.879	-0.826	***
5766.PC4	-0.851	0.033	-25.65	0.000	-0.916	-0.786	***
5801.PC4	-0.900	0.015	-60.59	0.000	-0.929	-0.871	***
5804.PC4	-0.884	0.040	-21.93	0.000	-0.963	-0.805	***
5809.PC4	-0.778	0.057	-13.54	0.000	-0.891	-0.665	***
5811.PC4	-0.933	0.179	-5.21	0.000	-1.285	-0.582	***
5812.PC4	-0.834	0.057	-14.51	0.000	-0.946	-0.721	***
5813.PC4	-0.810	0.025	-32.33	0.000	-0.859	-0.761	***
5814.PC4	-1.113	0.047	-23.54	0.000	-1.206	-1.021	***
5815.PC4	-0.931	0.026	-35.28	0.000	-0.982	-0.879	***
5816.PC4	-1.068	0.074	-14.48	0.000	-1.213	-0.924	***
5817.PC4	-0.938	0.127	-7.39	0.000	-1.186	-0.689	***
5871.PC4	-1.024	0.039	-26.50	0.000	-1.100	-0.948	***
5872.PC4	-1.044	0.036	-29.10	0.000	-1.114	-0.973	***
5961.PC4	-0.900	0.013	-67.50	0.000	-0.926	-0.874	***
5962.PC4	-0.984	0.031	-31.66	0.000	-1.045	-0.923	***
5963.PC4	-0.880	0.026	-33.40	0.000	-0.932	-0.829	***
5964.PC4	-0.955	0.034	-28.36	0.000	-1.021	-0.889	***
5966.PC4	-1.047	0.051	-20.68	0.000	-1.146	-0.948	***
5971.PC4	-1.059	0.017	-63.44	0.000	-1.092	-1.026	***
5973.PC4	-1.045	0.029	-35.54	0.000	-1.102	-0.987	***
6041.PC4	-0.944	0.011	-83.01	0.000	-0.967	-0.922	***
6042.PC4	-1.063	0.012	-87.43	0.000	-1.087	-1.039	***
6043.PC4	-1.172	0.012	-98.99	0.000	-1.195	-1.149	***
6044.PC4	-1.251	0.018	-68.25	0.000	-1.287	-1.216	***
6045.PC4	-1.130	0.013	-87.42	0.000	-1.156	-1.105	***
6049.PC4	-1.024	0.012	-82.05	0.000	-1.048	-1.000	***
6121.PC4	-1.082	0.020	-54.37	0.000	-1.121	-1.043	***
6122.PC4	-1.118	0.027	-42.06	0.000	-1.170	-1.066	***
6123.PC4	-1.178	0.029	-40.09	0.000	-1.236	-1.121	***
6124.PC4	-1.103	0.055	-20.11	0.000	-1.210	-0.995	***
6125.PC4	-1.080	0.033	-32.53	0.000	-1.145	-1.015	***
6127.PC4	-1.113	0.035	-31.55	0.000	-1.182	-1.044	***
6131.PC4	-0.940	0.016	-58.53	0.000	-0.972	-0.909	***
6132.PC4	-1.085	0.015	-72.45	0.000	-1.115	-1.056	***
6133.PC4	-1.032	0.016	-64.16	0.000	-1.063	-1.000	***
6134.PC4	-1.204	0.023	-52.89	0.000	-1.248	-1.159	***
6135.PC4	-1.200	0.015	-78.38	0.000	-1.230	-1.170	***
6136.PC4	-1.104	0.015	-75.34	0.000	-1.132	-1.075	***
6137.PC4	-1.145	0.015	-77.38	0.000	-1.174	-1.116	***
6141.PC4	-1.061	0.025	-41.76	0.000	-1.110	-1.011	***
6142.PC4	-1.147	0.041	-27.82	0.000	-1.228	-1.066	***
6143.PC4	-0.991	0.047	-20.97	0.000	-1.084	-0.898	***
6151.PC4	-1.031	0.019	-53.92	0.000	-1.068	-0.993	***
6161.PC4	-1.178	0.020	-58.58	0.000	-1.217	-1.138	***
6162.PC4	-1.188	0.018	-64.50	0.000	-1.224	-1.152	***
6163.PC4	-1.260	0.015	-83.12	0.000	-1.290	-1.230	***
6164.PC4	-1.071	0.020	-54.87	0.000	-1.110	-1.033	***
6165.PC4	-1.116	0.020	-57.19	0.000	-1.154	-1.078	***
6166.PC4	-1.163	0.020	-58.84	0.000	-1.202	-1.124	***
6212.PC4	-0.087	0.179	-0.48	0.628	-0.438	0.264	***
6213.PC4	-0.694	0.022	-31.98	0.000	-0.737	-0.651	***
6215.PC4	-0.925	0.015	-63.17	0.000	-0.953	-0.896	***

6811.PC4	-0.755	0.012	-62.13	0.000	-0.779	-0.731	***
6812.PC4	-0.782	0.013	-59.59	0.000	-0.807	-0.756	***
6813.PC4	-0.649	0.012	-55.34	0.000	-0.672	-0.626	***
6814.PC4	-0.627	0.011	-55.63	0.000	-0.649	-0.605	***
6815.PC4	-0.648	0.013	-48.92	0.000	-0.674	-0.622	***
6816.PC4	-0.589	0.017	-34.34	0.000	-0.623	-0.556	***
6821.PC4	-0.770	0.011	-69.23	0.000	-0.792	-0.749	***
6822.PC4	-0.855	0.012	-72.45	0.000	-0.878	-0.832	***
6823.PC4	-0.836	0.013	-66.70	0.000	-0.861	-0.812	***
6824.PC4	-0.746	0.011	-68.05	0.000	-0.767	-0.724	***
6825.PC4	-0.921	0.012	-79.11	0.000	-0.943	-0.898	***
6826.PC4	-0.974	0.012	-84.35	0.000	-0.997	-0.951	***
6827.PC4	-0.967	0.127	-7.63	0.000	-1.216	-0.719	***
6828.PC4	-0.825	0.011	-74.59	0.000	-0.847	-0.803	***
6831.PC4	-0.989	0.014	-70.03	0.000	-1.017	-0.961	***
6832.PC4	-1.028	0.013	-77.29	0.000	-1.054	-1.002	***
6833.PC4	-1.042	0.012	-87.97	0.000	-1.065	-1.019	***
6834.PC4	-0.986	0.018	-56.20	0.000	-1.020	-0.952	***
6835.PC4	-0.974	0.013	-74.83	0.000	-1.000	-0.949	***
6836.PC4	-1.002	0.011	-90.62	0.000	-1.023	-0.980	***
6841.PC4	-1.023	0.014	-75.35	0.000	-1.049	-0.996	***
6842.PC4	-0.868	0.017	-50.43	0.000	-0.901	-0.834	***
6843.PC4	-1.007	0.011	-88.60	0.000	-1.029	-0.985	***
6844.PC4	-0.983	0.013	-78.04	0.000	-1.008	-0.958	***
6845.PC4	-1.001	0.012	-84.96	0.000	-1.024	-0.977	***
6846.PC4	-0.996	0.014	-73.32	0.000	-1.023	-0.969	***
7001.PC4	-0.874	0.013	-69.66	0.000	-0.899	-0.850	***
7002.PC4	-1.044	0.012	-85.59	0.000	-1.068	-1.020	***
7003.PC4	-0.940	0.014	-69.07	0.000	-0.966	-0.913	***
7004.PC4	-0.939	0.014	-68.27	0.000	-0.966	-0.912	***
7005.PC4	-0.928	0.038	-24.50	0.000	-1.002	-0.853	***
7006.PC4	-1.027	0.011	-90.18	0.000	-1.049	-1.004	***
7007.PC4	-1.075	0.011	-93.71	0.000	-1.097	-1.052	***
7008.PC4	-0.927	0.021	-43.53	0.000	-0.969	-0.885	***
7009.PC4	-0.926	0.013	-72.35	0.000	-0.951	-0.901	***
7011.PC4	-1.005	0.014	-72.44	0.000	-1.032	-0.977	***
7031.PC4	-0.942	0.013	-72.29	0.000	-0.968	-0.917	***
7151.PC4	-0.993	0.013	-74.10	0.000	-1.020	-0.967	***
7152.PC4	-0.979	0.015	-65.48	0.000	-1.009	-0.950	***
7156.PC4	-0.879	0.022	-39.55	0.000	-0.922	-0.835	***
7161.PC4	-1.014	0.013	-79.90	0.000	-1.039	-0.989	***
7165.PC4	-0.945	0.030	-31.46	0.000	-1.004	-0.886	***
7201.PC4	-0.825	0.012	-69.40	0.000	-0.848	-0.802	***
7202.PC4	-0.563	0.104	-5.43	0.000	-0.766	-0.360	***
7203.PC4	-0.894	0.012	-71.81	0.000	-0.918	-0.870	***
7204.PC4	-0.909	0.012	-77.79	0.000	-0.932	-0.886	***
7205.PC4	-0.994	0.016	-63.75	0.000	-1.024	-0.963	***
7206.PC4	-0.945	0.012	-78.71	0.000	-0.969	-0.922	***
7207.PC4	-0.996	0.011	-86.99	0.000	-1.018	-0.973	***
7231.PC4	-0.767	0.013	-60.16	0.000	-0.792	-0.742	***
7232.PC4	-0.906	0.014	-65.52	0.000	-0.933	-0.879	***
7261.PC4	-0.919	0.012	-75.86	0.000	-0.942	-0.895	***
7271.PC4	-1.024	0.013	-81.57	0.000	-1.049	-1.000	***
7273.PC4	-0.940	0.028	-33.25	0.000	-0.995	-0.884	***
7274.PC4	-0.902	0.021	-42.15	0.000	-0.944	-0.860	***
7275.PC4	-1.061	0.026	-40.77	0.000	-1.111	-1.010	***
7601.PC4	-1.244	0.012	-99.75	0.000	-1.268	-1.220	***
7602.PC4	-1.081	0.013	-85.12	0.000	-1.106	-1.056	***
7603.PC4	-1.072	0.014	-75.32	0.000	-1.099	-1.044	***
7604.PC4	-1.168	0.013	-93.15	0.000	-1.192	-1.143	***
7605.PC4	-1.449	0.017	-87.07	0.000	-1.482	-1.417	***
7606.PC4	-1.240	0.012	-102.41	0.000	-1.264	-1.217	***

7607.PC4	-1.058	0.012	-89.53	0.000	-1.081	-1.035	***
7608.PC4	-1.142	0.012	-96.97	0.000	-1.165	-1.119	***
7609.PC4	-1.117	0.011	-99.82	0.000	-1.139	-1.095	***
7611.PC4	-0.940	0.022	-43.32	0.000	-0.983	-0.898	***
7627.PC4	-0.968	0.025	-38.13	0.000	-1.018	-0.918	***
7691.PC4	-1.036	0.015	-68.33	0.000	-1.065	-1.006	***
7692.PC4	-1.041	0.024	-43.20	0.000	-1.088	-0.994	***
7693.PC4	-1.044	0.027	-38.32	0.000	-1.097	-0.991	***
7694.PC4	-1.009	0.021	-47.37	0.000	-1.051	-0.968	***
7695.PC4	-0.992	0.024	-41.38	0.000	-1.039	-0.945	***
7696.PC4	-0.891	0.045	-19.99	0.000	-0.978	-0.804	***
7701.PC4	-1.042	0.013	-81.27	0.000	-1.068	-1.017	***
7707.PC4	-0.856	0.061	-14.13	0.000	-0.975	-0.737	***
7771.PC4	-0.937	0.013	-73.43	0.000	-0.962	-0.912	***
7772.PC4	-1.007	0.011	-87.63	0.000	-1.030	-0.985	***
7773.PC4	-1.066	0.015	-69.59	0.000	-1.096	-1.036	***
7775.PC4	-1.061	0.017	-60.95	0.000	-1.095	-1.027	***
7776.PC4	-1.066	0.015	-71.71	0.000	-1.096	-1.037	***
7777.PC4	-1.051	0.023	-45.15	0.000	-1.097	-1.005	***
7778.PC4	-0.900	0.068	-13.17	0.000	-1.034	-0.766	***
7779.PC4	-1.957	0.081	-24.27	0.000	-2.115	-1.799	***
7781.PC4	-1.118	0.039	-28.94	0.000	-1.194	-1.042	***
7782.PC4	-1.111	0.017	-64.52	0.000	-1.145	-1.077	***
7783.PC4	-1.035	0.016	-64.80	0.000	-1.066	-1.004	***
7784.PC4	-0.937	0.034	-27.78	0.000	-1.003	-0.871	***
7786.PC4	-1.011	0.055	-18.41	0.000	-1.119	-0.904	***
7787.PC4	-1.157	0.074	-15.69	0.000	-1.301	-1.012	***
7788.PC4	-0.953	0.064	-14.89	0.000	-1.079	-0.828	***
7791.PC4	-0.946	0.032	-29.23	0.000	-1.009	-0.882	***
7792.PC4	-0.905	0.058	-15.73	0.000	-1.018	-0.792	***
7793.PC4	-0.904	0.037	-24.32	0.000	-0.977	-0.831	***
7794.PC4	-1.023	0.068	-14.97	0.000	-1.157	-0.889	***
7795.PC4	-0.948	0.090	-10.53	0.000	-1.124	-0.772	***
7796.PC4	-0.766	0.064	-11.95	0.000	-0.891	-0.640	***
7797.PC4	-1.035	0.037	-27.82	0.000	-1.108	-0.962	***
7798.PC4	-0.798	0.043	-18.38	0.000	-0.883	-0.712	***
7901.PC4	-1.008	0.014	-71.88	0.000	-1.035	-0.980	***
7902.PC4	-1.070	0.013	-81.42	0.000	-1.095	-1.044	***
7903.PC4	-0.946	0.046	-20.64	0.000	-1.036	-0.856	***
7904.PC4	-1.176	0.013	-90.24	0.000	-1.202	-1.151	***
7905.PC4	-1.178	0.013	-90.91	0.000	-1.203	-1.152	***
7906.PC4	-1.094	0.012	-92.09	0.000	-1.117	-1.071	***
7907.PC4	-1.051	0.018	-59.77	0.000	-1.085	-1.016	***
7908.PC4	-1.117	0.011	-98.34	0.000	-1.139	-1.094	***
7909.PC4	-1.081	0.017	-63.97	0.000	-1.114	-1.048	***
7911.PC4	-0.857	0.041	-20.75	0.000	-0.938	-0.776	***
7912.PC4	-1.053	0.027	-39.30	0.000	-1.106	-1.000	***
7913.PC4	-1.033	0.014	-75.49	0.000	-1.060	-1.006	***
7914.PC4	-1.025	0.017	-59.49	0.000	-1.058	-0.991	***
7915.PC4	-1.090	0.090	-12.11	0.000	-1.266	-0.913	***
7916.PC4	-1.029	0.016	-64.61	0.000	-1.060	-0.998	***
7918.PC4	-1.079	0.017	-62.66	0.000	-1.113	-1.046	***
7931.PC4	-1.042	0.024	-42.71	0.000	-1.090	-0.994	***
7933.PC4	-0.991	0.019	-51.22	0.000	-1.029	-0.953	***
7934.PC4	-1.018	0.028	-36.32	0.000	-1.073	-0.963	***
7936.PC4	-0.869	0.027	-32.42	0.000	-0.921	-0.816	***
8011.PC4	-0.652	0.012	-54.73	0.000	-0.675	-0.628	***
8012.PC4	-0.786	0.011	-68.81	0.000	-0.809	-0.764	***
8013.PC4	-0.776	0.015	-52.24	0.000	-0.805	-0.747	***
8014.PC4	-0.821	0.011	-73.68	0.000	-0.843	-0.799	***
8015.PC4	-0.880	0.013	-65.90	0.000	-0.907	-0.854	***
8016.PC4	-0.838	0.012	-72.35	0.000	-0.861	-0.815	***

8017.PC4	-0.792	0.012	-66.33	0.000	-0.815	-0.768	***
8019.PC4	-0.612	0.014	-42.32	0.000	-0.640	-0.583	***
8021.PC4	-0.802	0.012	-64.56	0.000	-0.826	-0.777	***
8022.PC4	-0.814	0.012	-65.15	0.000	-0.839	-0.790	***
8023.PC4	-0.727	0.012	-61.93	0.000	-0.750	-0.704	***
8024.PC4	-0.673	0.013	-50.22	0.000	-0.699	-0.647	***
8025.PC4	-0.736	0.027	-27.26	0.000	-0.789	-0.683	***
8026.PC4	-0.746	0.026	-28.73	0.000	-0.797	-0.695	***
8028.PC4	-0.801	0.053	-15.22	0.000	-0.904	-0.698	***
8031.PC4	-0.849	0.011	-74.64	0.000	-0.872	-0.827	***
8032.PC4	-0.778	0.012	-66.19	0.000	-0.801	-0.755	***
8033.PC4	-0.810	0.014	-59.48	0.000	-0.837	-0.784	***
8034.PC4	-0.554	0.023	-24.05	0.000	-0.599	-0.509	***
8035.PC4	-0.631	0.049	-12.90	0.000	-0.727	-0.535	***
8041.PC4	-0.594	0.033	-17.89	0.000	-0.659	-0.528	***
8042.PC4	-0.797	0.013	-62.53	0.000	-0.822	-0.772	***
8043.PC4	-0.910	0.011	-84.98	0.000	-0.931	-0.889	***
8044.PC4	-0.930	0.179	-5.19	0.000	-1.281	-0.579	***
8045.PC4	-0.703	0.179	-3.93	0.000	-1.054	-0.352	***
8211.PC4	-0.621	0.041	-15.05	0.000	-0.702	-0.540	***
8219.PC4	-0.359	0.127	-2.83	0.005	-0.608	-0.110	***
8222.PC4	-0.780	0.051	-15.41	0.000	-0.879	-0.681	***
8223.PC4	-1.205	0.013	-92.31	0.000	-1.231	-1.180	***
8224.PC4	-1.150	0.014	-79.41	0.000	-1.179	-1.122	***
8225.PC4	-1.194	0.028	-43.07	0.000	-1.249	-1.140	***
8231.PC4	-1.179	0.017	-68.17	0.000	-1.213	-1.146	***
8232.PC4	-1.152	0.017	-67.14	0.000	-1.185	-1.118	***
8241.PC4	-0.986	0.021	-46.90	0.000	-1.027	-0.945	***
8242.PC4	-1.087	0.014	-75.16	0.000	-1.115	-1.058	***
8243.PC4	-1.127	0.014	-78.20	0.000	-1.156	-1.099	***
8244.PC4	-1.147	0.012	-95.16	0.000	-1.171	-1.123	***
8245.PC4	-1.137	0.013	-85.06	0.000	-1.163	-1.110	***
8911.PC4	-0.952	0.013	-72.06	0.000	-0.978	-0.926	***
8913.PC4	-1.058	0.012	-86.94	0.000	-1.082	-1.034	***
8914.PC4	-1.030	0.020	-52.80	0.000	-1.068	-0.992	***
8915.PC4	-1.118	0.012	-89.72	0.000	-1.143	-1.094	***
8916.PC4	-1.113	0.012	-92.04	0.000	-1.136	-1.089	***
8917.PC4	-1.022	0.014	-72.95	0.000	-1.050	-0.995	***
8918.PC4	-1.223	0.014	-88.74	0.000	-1.250	-1.196	***
8919.PC4	-0.992	0.023	-43.35	0.000	-1.036	-0.947	***
8921.PC4	-1.215	0.011	-109.71	0.000	-1.237	-1.194	***
8922.PC4	-1.246	0.013	-94.43	0.000	-1.272	-1.221	***
8923.PC4	-1.187	0.018	-65.10	0.000	-1.222	-1.151	***
8924.PC4	-1.217	0.015	-82.16	0.000	-1.246	-1.188	***
8925.PC4	-1.044	0.013	-82.78	0.000	-1.069	-1.019	***
8926.PC4	-1.151	0.012	-99.33	0.000	-1.174	-1.128	***
8927.PC4	-1.154	0.051	-22.80	0.000	-1.253	-1.055	***
8931.PC4	-1.091	0.012	-88.39	0.000	-1.115	-1.066	***
8932.PC4	-1.174	0.011	-103.33	0.000	-1.196	-1.151	***
8933.PC4	-1.209	0.012	-99.12	0.000	-1.233	-1.185	***
8934.PC4	-1.147	0.015	-77.93	0.000	-1.176	-1.118	***
8935.PC4	-1.088	0.012	-91.35	0.000	-1.111	-1.065	***
8936.PC4	-1.260	0.035	-35.72	0.000	-1.329	-1.191	***
8938.PC4	-0.842	0.074	-11.43	0.000	-0.987	-0.698	***
8939.PC4	-1.067	0.013	-84.04	0.000	-1.092	-1.042	***
9081.PC4	-1.000	0.026	-37.95	0.000	-1.052	-0.948	***
9082.PC4	-0.698	0.090	-7.76	0.000	-0.875	-0.522	***
9083.PC4	-0.934	0.053	-17.76	0.000	-1.037	-0.831	***
9084.PC4	-0.961	0.015	-65.44	0.000	-0.989	-0.932	***
9085.PC4	-0.916	0.127	-7.22	0.000	-1.164	-0.667	***
9086.PC4	-0.891	0.049	-18.24	0.000	-0.987	-0.795	***
9087.PC4	-0.889	0.127	-7.01	0.000	-1.137	-0.640	***



9088.PC4	-1.126	0.022	-51.72	0.000	-1.169	-1.083	***
9089.PC4	-1.172	0.026	-45.16	0.000	-1.223	-1.121	***
9301.PC4	-0.975	0.011	-87.56	0.000	-0.997	-0.953	***
9302.PC4	-1.011	0.014	-74.72	0.000	-1.038	-0.985	***
9304.PC4	-0.795	0.036	-22.13	0.000	-0.866	-0.725	***
9305.PC4	-0.845	0.032	-26.50	0.000	-0.907	-0.782	***
9306.PC4	-0.827	0.057	-14.39	0.000	-0.939	-0.714	***
9307.PC4	-0.857	0.047	-18.10	0.000	-0.949	-0.764	***
9311.PC4	-0.908	0.020	-45.26	0.000	-0.947	-0.869	***
9312.PC4	-0.900	0.019	-47.80	0.000	-0.937	-0.863	***
9313.PC4	-0.854	0.047	-18.04	0.000	-0.947	-0.761	***
9314.PC4	-0.769	0.053	-14.60	0.000	-0.872	-0.666	***
9315.PC4	-0.877	0.030	-29.49	0.000	-0.935	-0.818	***
9321.PC4	-0.917	0.012	-74.56	0.000	-0.941	-0.893	***
9331.PC4	-1.067	0.013	-83.31	0.000	-1.092	-1.042	***
9333.PC4	-0.917	0.037	-25.04	0.000	-0.988	-0.845	***
9334.PC4	-0.853	0.047	-18.01	0.000	-0.945	-0.760	***
9335.PC4	-0.879	0.042	-20.76	0.000	-0.962	-0.796	***
9336.PC4	-1.070	0.055	-19.51	0.000	-1.178	-0.963	***
9337.PC4	-0.851	0.051	-16.78	0.000	-0.950	-0.751	***
9341.PC4	-1.179	0.018	-64.11	0.000	-1.215	-1.143	***
9342.PC4	-1.010	0.022	-46.51	0.000	-1.052	-0.967	***
9343.PC4	-0.882	0.039	-22.34	0.000	-0.960	-0.805	***
9403.PC4	-1.087	0.017	-65.87	0.000	-1.119	-1.055	***
9405.PC4	-0.592	0.179	-3.31	0.001	-0.943	-0.241	***
9406.PC4	-0.821	0.074	-11.14	0.000	-0.965	-0.676	***
9408.PC4	-1.131	0.019	-58.97	0.000	-1.169	-1.093	***
9486.PC4	-0.778	0.127	-6.14	0.000	-1.027	-0.530	***
9487.PC4	-0.914	0.060	-15.11	0.000	-1.032	-0.795	***
9488.PC4	-0.905	0.081	-11.23	0.000	-1.063	-0.747	***
9489.PC4	-0.944	0.127	-7.45	0.000	-1.193	-0.696	***
9492.PC4	-0.894	0.045	-20.04	0.000	-0.981	-0.806	***
9541.PC4	-1.153	0.015	-75.25	0.000	-1.183	-1.123	***
9545.PC4	-1.308	0.023	-55.87	0.000	-1.354	-1.262	***
9551.PC4	-1.166	0.015	-75.26	0.000	-1.197	-1.136	***
9561.PC4	-1.218	0.012	-103.04	0.000	-1.241	-1.194	***
9563.PC4	-1.256	0.021	-58.91	0.000	-1.298	-1.214	***
9723.PC4	-0.898	0.043	-20.72	0.000	-0.983	-0.813	***
9732.PC4	-1.106	0.018	-60.49	0.000	-1.142	-1.071	***
9733.PC4	-1.090	0.016	-69.39	0.000	-1.120	-1.059	***
9734.PC4	-0.935	0.017	-56.59	0.000	-0.968	-0.903	***
9736.PC4	-1.168	0.014	-80.88	0.000	-1.196	-1.140	***
9738.PC4	-1.108	0.179	-6.19	0.000	-1.459	-0.757	***
9749.PC4	-1.340	0.179	-7.48	0.000	-1.691	-0.989	***
Kwartaaldummy							
2005Q2	0.012	0.003	4.43	0.000	0.006	0.017	***
2005Q3	0.018	0.003	6.96	0.000	0.013	0.023	***
2005Q4	0.027	0.003	10.25	0.000	0.021	0.032	***
2006Q1	0.033	0.003	12.88	0.000	0.028	0.039	***
2006Q2	0.051	0.003	19.58	0.000	0.046	0.056	***
2006Q3	0.059	0.003	22.29	0.000	0.054	0.064	***
2006Q4	0.067	0.003	25.65	0.000	0.062	0.072	***
2007Q1	0.080	0.003	30.69	0.000	0.075	0.085	***
2007Q2	0.110	0.003	42.30	0.000	0.105	0.115	***
2007Q3	0.113	0.003	43.22	0.000	0.108	0.118	***
2007Q4	0.117	0.003	44.98	0.000	0.112	0.123	***
2008Q1	0.124	0.003	47.40	0.000	0.119	0.129	***
2008Q2	0.136	0.003	51.92	0.000	0.131	0.141	***
2008Q3	0.134	0.003	49.81	0.000	0.129	0.139	***
2008Q4	0.113	0.003	38.48	0.000	0.107	0.118	***
2009Q1	0.091	0.003	30.48	0.000	0.085	0.097	***

2009Q2	0.099	0.003	34.76	0.000	0.093	0.104	***
2009Q3	0.092	0.003	32.20	0.000	0.087	0.098	***
2009Q4	0.089	0.003	31.42	0.000	0.083	0.094	***
2010Q1	0.089	0.003	30.79	0.000	0.083	0.094	***
2010Q2	0.098	0.003	33.78	0.000	0.092	0.103	***
2010Q3	0.095	0.003	32.25	0.000	0.090	0.101	***
2010Q4	0.098	0.003	34.59	0.000	0.092	0.103	***
2011Q1	0.091	0.003	30.54	0.000	0.085	0.097	***
2011Q2	0.091	0.003	30.83	0.000	0.085	0.097	***
2011Q3	0.082	0.003	27.73	0.000	0.076	0.087	***
2011Q4	0.061	0.003	20.43	0.000	0.055	0.067	***
2012Q1	0.043	0.003	14.04	0.000	0.037	0.049	***
2012Q2	0.030	0.003	9.98	0.000	0.024	0.035	***
2012Q3	0.013	0.003	4.19	0.000	0.007	0.019	***
2012Q4	-0.001	0.003	-0.43	0.667	-0.007	0.004	
2013Q1	-0.031	0.003	-8.92	0.000	-0.037	-0.024	***
2013Q2	-0.021	0.003	-7.13	0.000	-0.027	-0.015	***
2013Q3	-0.021	0.003	-7.18	0.000	-0.027	-0.015	***
2013Q4	-0.030	0.003	-10.76	0.000	-0.036	-0.025	***
2014Q1	-0.021	0.003	-7.36	0.000	-0.027	-0.016	***
2014Q2	-0.005	0.003	-1.92	0.055	-0.011	0.000	*
2014Q3	-0.001	0.003	-0.20	0.843	-0.006	0.005	
2014Q4	0.013	0.003	5.11	0.000	0.008	0.019	***
2015Q1	0.027	0.003	9.65	0.000	0.021	0.032	***
2015Q2	0.050	0.003	19.39	0.000	0.045	0.055	***
2015Q3	0.064	0.003	24.01	0.000	0.058	0.069	***
2015Q4	0.074	0.003	28.92	0.000	0.069	0.079	***
2016Q1	0.081	0.003	30.63	0.000	0.076	0.086	***
2016Q2	0.113	0.003	44.58	0.000	0.108	0.118	***
2016Q3	0.133	0.003	51.47	0.000	0.128	0.138	***
2016Q4	0.155	0.003	61.35	0.000	0.150	0.160	***
2017Q1	0.178	0.003	67.70	0.000	0.173	0.183	***
2017Q2	0.215	0.003	83.47	0.000	0.210	0.221	***
2017Q3	0.236	0.003	89.57	0.000	0.230	0.241	***
2017Q4	0.262	0.003	95.14	0.000	0.256	0.267	***
Penitentiaire inrichting binnen 300 meter	-0.037	0.004	-8.73	0.000	-0.045	-0.029	***
Transacties na sluiting van dichtstbijzijnde penitentiaire inrichting	0.108	0.001	93.37	0.000	0.106	0.111	***
Transactie na sluiting van penitentiaire inrichting binnen 300 meter	0.027	0.008	3.48	0.000	0.012	0.043	***
Bouwperiode							
Onbekend	0.172	0.015	11.24	0.000	0.142	0.202	***
1500-1905	0.116	0.002	69.20	0.000	0.113	0.119	***
1906-1930	0.072	0.001	49.16	0.000	0.069	0.074	***
1931-1944	0.067	0.002	43.60	0.000	0.064	0.070	***
1945-1959	0.030	0.002	19.15	0.000	0.027	0.033	***
1960-1970	-0.019	0.001	-13.32	0.000	-0.021	-0.016	***
1981-1990	0.050	0.001	37.05	0.000	0.047	0.052	***
1991-2000	0.141	0.001	98.25	0.000	0.138	0.144	***
>2000	0.185	0.002	117.28	0.000	0.182	0.188	***
Soort woning							
Eenvoudig	-0.021	0.002	-10.32	0.000	-0.025	-0.017	***
Grachtenpand	0.124	0.007	18.54	0.000	0.111	0.137	***
Herenhuis	0.121	0.001	90.16	0.000	0.119	0.124	***

Woonboerderrij	0.278	0.005	61.55	0.000	0.269	0.287	***
Bungalow	0.212	0.003	81.91	0.000	0.207	0.217	***
Villa	0.305	0.002	130.89	0.000	0.300	0.309	***
Landhuis	0.352	0.007	53.26	0.000	0.339	0.365	***
Benedenwoning	0.005	0.001	3.86	0.000	0.003	0.008	***
Bovenwoning	-0.095	0.001	-68.05	0.000	-0.098	-0.092	***
Maisonette	-0.100	0.002	-53.62	0.000	-0.103	-0.096	***
Portiekflat	-0.072	0.001	-52.25	0.000	-0.075	-0.070	***
Gallerijflat	-0.076	0.002	-47.41	0.000	-0.080	-0.073	***
Beneden- en bovenwoning (samen)	0.046	0.004	12.58	0.000	0.039	0.054	***
log_Woonoppervlak	0.735	0.001	545.35	0.000	0.732	0.737	***
Aantal_kamers	0.010	0.000	33.09	0.000	0.010	0.011	***
Aantal_balkons	0.007	0.001	10.16	0.000	0.006	0.008	***
Aantal_dakkapellen	0.012	0.001	13.14	0.000	0.010	0.013	***
Aantal_dakterassen	0.026	0.001	28.07	0.000	0.024	0.028	***
Aantal_bijkeukens	0.034	0.001	36.71	0.000	0.032	0.036	***
Aantal_badkamers	0.027	0.001	41.98	0.000	0.025	0.028	***
Soort parkeerplek							
Parkeerplaats	0.066	0.001	52.73	0.000	0.063	0.068	***
Carport zonder garage	0.090	0.001	61.44	0.000	0.087	0.092	***
Garage zonder carport	0.131	0.001	134.79	0.000	0.129	0.132	***
Garage en carport	0.140	0.003	46.11	0.000	0.134	0.146	***
Garage (meer auto's)	0.177	0.002	82.67	0.000	0.172	0.181	***
Tuinligging							
Noord	-0.051	0.003	-16.93	0.000	-0.057	-0.045	***
Noord-oost	-0.033	0.003	-11.16	0.000	-0.039	-0.027	***
Oost	-0.045	0.003	-15.65	0.000	-0.051	-0.040	***
Zuid-oost	-0.026	0.003	-9.02	0.000	-0.031	-0.020	***
Zuid	-0.035	0.003	-12.47	0.000	-0.041	-0.030	***
Zuid-west	-0.018	0.003	-6.30	0.000	-0.023	-0.012	***
West	-0.037	0.003	-13.01	0.000	-0.043	-0.031	***
Noord-west	-0.029	0.003	-9.71	0.000	-0.034	-0.023	***
Tuinafwerking							
Verwaarloosd	0.000	0.005	-0.00	0.998	-0.009	0.009	
Normaal	0.024	0.003	9.17	0.000	0.019	0.029	***
Fraai aangelegd	0.079	0.003	28.51	0.000	0.073	0.084	***
Verzorgd	0.053	0.003	19.55	0.000	0.048	0.059	***
Staat_binnen							
Matig tot slecht	0.031	0.009	3.34	0.001	0.013	0.049	***
Matig	0.089	0.006	15.66	0.000	0.078	0.100	***
Matig tot redelijk	0.098	0.006	15.43	0.000	0.085	0.110	***
Redelijk	0.147	0.005	27.40	0.000	0.137	0.158	***
Redelijk tot goed	0.176	0.005	32.12	0.000	0.165	0.187	***
Goed	0.260	0.005	48.90	0.000	0.250	0.271	***
Goed tot uitstekend	0.325	0.005	59.21	0.000	0.314	0.335	***
Uitstekend	0.341	0.005	63.41	0.000	0.330	0.351	***
Constant	9.090	0.013	701.82	0.000	9.065	9.116	***
Mean dependent var		12.249	SD dependent var			0.502	
R-squared		0.873	Number of obs			448493.000	
F-test		3730.132	Prob > F			0.000	
Akaike crit. (AIC)		-271030.351	Bayesian crit. (BIC)			-261911.050	

\*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$

## Appendix 9: Summary of statistics of model 1&2.

### Summary of statistics of model 1

Variable	Obs	Mean	Std. Dev.	Min	Max
Verkoop_ID	566,618	4021648	1390055	4204	6283707
PC6no	566,618	4.10e+07	2.59e+07	1.01e+07	9.75e+07
Provincie	566,618	7.579909	2.602615	1	12
Gemeentenu~r	566,618	460.7936	310.8161	14	1883
Plaatsnummer	566,618	985.0055	812.7974	1	2459
Huisnummer	566,618	118.538	396.94	1	9313
Woningcate~e	566,618	1.467239	.498926	1	2
Bouwperiode	566,618	5.150699	2.514466	0	9
Perceelopp	313,089	17292.9	1221174	1	2.00e+08
Woonopp	566,618	108.7452	44.55841	26	499
Inhoud	566,618	390.4009	234.7814	45	99999
Woningtype	566,618	.7187841	1.929465	-1	5
Soorthuis	566,618	2.410458	3.359209	-1	11
Soortapp	566,618	.8567077	2.201048	-1	7
Soortwoning	566,618	13.61194	8.880459	2	27
Verkoopprijs	566,618	235,180	143,245.1	50100	1499000
Verkoopcon~e	566,618	1.01753	.1416117	1	6
Datum_aanm~g	566,618	18520.01	1424.825	7320	21182
Datum_afme~g	566,618	18679.45	1431.095	16437	21184
Openportiek	264,746	.0647715	.2461227	0	1
Lift	264,746	.2561852	.4365261	0	1
Kwaliteit_~t	264,746	1.082026	.4252539	0	2
Aantal_verd	566,618	2.096139	.9512597	1	5
Aantal_kam~s	566,618	4.200767	1.510749	1	14
Daktrap	566,618	.0291413	.1682027	0	1
Zolder	566,618	.155041	.361944	0	1
Vliering	566,618	.0499172	.2177742	0	1
Praktijkru~e	566,618	.0168262	.1888106	0	4
Soort_woon~r	566,618	.6444695	1.468656	0	5
Aantal_bal~s	566,618	.3809127	.5177204	0	5
Aantal_d~len	566,618	.1153352	.3287063	0	3
Aantal_d~sen	566,618	.09574	.3040865	0	4
Aantal_keu~s	566,618	.6569558	.4947476	0	5
Aantal_bij~s	566,618	.1240289	.3309347	0	3
Aantal_bad~s	566,618	.9137673	.444292	0	7
Soort_park~k	566,618	.9600295	1.801933	0	8
Tuinligging	566,618	2.544506	2.816666	0	8
Tuinafwerk~g	566,618	2.381185	1.458761	1	5
Staat_binnen	566,618	7.01034	1.119251	1	9
Staat_buiten	566,618	7.077094	.8931138	1	9
Verwarming	566,618	1.868278	.4598401	0	3
Isolatie	566,618	2.018633	1.824784	0	5
Centrale_l~g	460,343	2.085202	.3374948	0	3
Natuurligg~g	185,203	3.181801	.9788279	1	4
Wegligging	283,033	.163882	.5485505	0	2

Erfpacht	520,077	.1795849	.3838417	0	1
Permanent	566,618	.9918393	.0899673	0	1
X	566,618	138573.6	47692.35	29505.38	276878
Y	566,618	462982.4	50480.2	313939.2	586786.3
Jaar	566,618	2010.637	3.903258	2005	2017
Maand	566,618	6.593982	3.39201	1	12
Kwartaal	566,618	2.529177	1.11087	1	4
Afstandgev~n	566,617	3388.441	2368.911	50	25136
Gevangenis	566,618	23.88305	18.70173	0	62
PC4	566,618	4104.559	2591.57	1011	9749
log_Verkoo~s	566,618	12.23955	.4804617	1082178	1422031
log_Woonopp	566,618	4.615572	.3805803	3258096	6212606
Afstandgev~g	566,618	6.965956	.4506728	1	7
Kwartaaldu~y	566,618	25.07819	15.66933	1	52
VTNGeffect	566,618	2	0	2	2
Capgev	566,618	1.182991	18.09473	0	681
Soortgev	566,618	1.281961	.5489645	1	3
Gevangen~300	566,618	.0037662	.0612538	0	1
TBS_300	566,618	.0016554	.0406534	0	1
Jeugd_300	566,618	.0002524	.0158843	0	1

#### Summary of statistics of model 2

Variable	Obs	Mean	Std. Dev.	Min	Max
Verkoop_ID	448,493	4141876	1424233	4204	6283707
PC6no	448,493	3.76e+07	2.35e+07	1.01e+07	9.75e+07
Provincie	448,493	7.897033	2.27284	1	12
Gemeentenu~r	448,493	484.2534	296.9667	14	1883
Plaatsnummer	448,493	998.3811	808.2708	1	2459
Huisnummer	448,493	94.45845	182.6377	1	7327
Woningcate~e	448,493	1.476792	.4994617	1	2
Bouwperiode	448,493	5.02644	2.552891	0	9
Perceelopp	243,031	13673	1043907	1	1.00e+08
Woonopp	448,493	109.0529	45.1405	26	498
Inhoud	448,493	389.3486	229.7963	43	99999
Woningtype	448,493	.6870252	1.925657	-1	5
Soorthuis	448,493	2.349343	3.356077	-1	11
Soortapp	448,493	.8731998	2.188934	-1	7
Soortwoning	448,493	13.75839	8.866604	2	27
Verkoopprijs	448,493	240,377.5	154,729.3	50100	1499000
Verkoopcon~e	448,493	1.015853	.1377267	1	6
Datum_aanm~g	448,493	18668.35	1479.288	7320	21183
Datum_afme~g	448,493	18831.29	1477.159	16437	21184
Openportiek	213,838	.0700063	.2551582	0	1
Lift	213,838	.2491278	.432509	0	1
Kwaliteit_~t	213,838	1.091017	.4294072	0	2
Aantal_verd	448,493	2.083883	.94894	1	5
Aantal_kam~s	448,493	4.212284	1.526963	1	14
Daktrap	448,493	.0282725	.1657504	0	1

Zolder	448,493	.1527515	.3597482	0	1
Vliering	448,493	.0512739	.2205562	0	1
Praktijkru~e	448,493	.0165911	.1856131	0	4
Soort_woon~r	448,493	.6333834	1.46599	0	5
Aantal_bal~s	448,493	.3868266	.5239313	0	4
Aantal_d~len	448,493	.1127665	.3259244	0	3
Aantal_d~sen	448,493	.0972211	.3066146	0	4
Aantal_keu~s	448,493	.685654	.4870514	0	5
Aantal_bij~s	448,493	.122517	.3291583	0	3
Aantal_bad~s	448,493	.9101034	.4555693	0	7
Soort_park~k	448,493	.9285206	1.786025	0	8
Tuinligging	448,493	2.503925	2.808051	0	8
Tuinafwerk~g	448,493	2.363932	1.461902	1	5
Staat_binnen	448,493	7.00384	1.132999	1	9
Staat_buiten	448,493	7.066877	.8980079	1	9
Verwarming	448,493	1.872056	.4532699	0	3
Isolatie	448,493	1.969266	1.807692	0	5
Centrale_l~g	362,752	2.094271	.3544152	0	3
Natuurligg~g	148,858	3.159911	.9796682	1	4
Wegligging	220,111	.1649168	.5501249	0	2
Erfpacht	414,323	.1782064	.3826868	0	1
Permanent	448,493	.9923053	.0873812	0	1
X	448,493	129649.3	45758.67	29505.38	276878
Y	448,493	460426.6	43567.67	314611	586786.3
Jaar	448,493	2011.051	4.028077	2005	2017
Maand	448,493	6.616607	3.391518	1	12
Kwartaal	448,493	2.536911	1.110903	1	4
Afstandgev~n	448,492	3643.023	2540.33	50	25136
Gevangenis	448,493	27.72683	18.52683	0	59
PC4	448,493	3756.126	2349.631	1011	9749
log_Verkoo~s	448,493	12.24897	.5015336	1082178	1422031
log_Woonopp	448,493	4.61671	.385288	3258096	62106
Afstandgev~g	448,493	6.961725	.4776867	1	7
Kwartaaldu~y	448,493	26.74152	16.17398	1	52
VTNGeffect	448,493	2.108106	.3105152	2	3
Capgev	448,493	1.541299	20.96746	0	681
Soortgev	448,493	1	0	1	1
Int_slui~300	448,493	.0016277	.0403116	0	1

## Appendix 10: House price development by year.

### Price development of houses in Model 1

Variable	Obs	Mean	Std. Dev.	Min	Max
<i>Target group:</i>					
<i>within 300 meters of a penitentiary institution, during exploitation</i>					
Sales price in year 2005	254	252920.4	146551.9	72250	927500
Sales price in year 2006	232	260549	154554.1	62000	925000
Sales price in year 2007	253	322282.6	207695.8	78000	1150000
Sales price in year 2008	245	313953.5	197962.3	58000	1082500
Sales price in year 2009	186	277927.8	158921.8	80000	1050000
Sales price in year 2010	180	313029.8	201409.1	77500	960000
Sales price in year 2011	185	301623.9	192073.5	56000	1090000
Sales price in year 2012	168	267505.2	161683.7	90000	930000
Sales price in year 2013	123	244555.2	130592.2	85000	745000
Sales price in year 2014	126	285527.8	189840.3	60000	1087500
Sales price in year 2015	104	274998.3	198525.2	70000	1145000
Sales price in year 2016	42	326026.9	291769.6	75000	1275000
Sales price in year 2017	36	206540.3	165963.9	83000	945000
<i>Target group tbs-clinic</i>					
<i>within 300 meters of a tbs-clinic, during exploitation</i>					
Sales price in year 2005	72	206397.8	55672.61	97500	395000
Sales price in year 2006	69	221847.9	69812.84	105000	445000
Sales price in year 2007	83	248175.2	97303.38	124000	575000
Sales price in year 2008	85	237402.1	76746.43	97500	580500
Sales price in year 2009	57	246954.8	89428.21	122000	590000
Sales price in year 2010	81	241218.8	84394.74	110000	585000
Sales price in year 2011	70	221020.7	80108.59	95000	550000
Sales price in year 2012	39	219939.4	72834.97	121000	432000
Sales price in year 2013	53	226946.3	117938.9	67500	820000
Sales price in year 2014	89	202019.8	74722.5	85000	555000
Sales price in year 2015	80	235647.6	113575.1	90000	688500
Sales price in year 2016	88	257227.5	107508.4	92500	855000
Sales price in year 2017	72	307032.8	140707	125000	1070000
<i>Target group juvenile prison</i>					
<i>within 300 meters of a juvenile prison, during exploitation</i>					
Sales price in year 2005	18	302652.8	68732.92	225000	440000
Sales price in year 2006	15	294300	124933.4	187500	700000
Sales price in year 2007	10	307650	105066.1	154000	477000
Sales price in year 2008	11	292863.6	101834.1	153750	485000
Sales price in year 2009	6	304875	78750.2	216250	430000
Sales price in year 2010	10	344350	128040.6	235000	690000
Sales price in year 2011	8	327093.8	131926.8	210500	580000
Sales price in year 2012	9	281277.8	66273.63	195000	419000
Sales price in year 2013	2	291250	146724.7	187500	395000
Sales price in year 2014	13	330846.2	177024.3	143000	785000
Sales price in year 2015	18	278444.4	80515.23	202500	470000
Sales price in year 2016	9	346055.6	144612.7	217500	712500
Sales price in year 2017	14	365500	107002	227500	575000
<i>Control group</i>					
Sales price in year 2005	53,167	223029.6	131814.5	50250	1485000
Sales price in year 2006	54,786	234639.9	141919.1	51000	1485000
Sales price in year 2007	55,581	245708.5	151365.2	50500	1499000
Sales price in year 2008	48,896	248936.9	152201.4	50500	1499000
Sales price in year 2009	38,678	235960.5	141913.5	50625	1495000
Sales price in year 2010	38,475	241460.6	146632.3	50150	1480000
Sales price in year 2011	34,837	240235.1	153590.9	51000	1495000
Sales price in year 2012	34,559	223004.3	139188.7	51000	1495000
Sales price in year 2013	30,525	218372.2	138746	51000	1492500
Sales price in year 2014	40,327	219673	132777.4	50750	1487500
Sales price in year 2015	47,798	227606	137184.7	50100	1475000
Sales price in year 2016	46,861	234473.2	138748.1	52000	1450000
Sales price in year 2017	38,913	255883.6	146845.1	51850	1497500

**Price development of houses in Model 2**

Variable	Obs	Mean	Std. Dev.	Min	Max
<i>Target group:</i>					
<i>within 300 meters of a penitentiary institution, during exploitation and after closure</i>					
Sales price in year 2005	253	253228.4	146760	72250	927500
Sales price in year 2006	232	260549	154554.1	62000	925000
Sales price in year 2007	253	322282.6	207695.8	78000	1150000
Sales price in year 2008	245	313953.5	197962.3	58000	1082500
Sales price in year 2009	185	278389.5	159227.9	80000	1050000
Sales price in year 2010	180	313029.8	201409.1	77500	960000
Sales price in year 2011	185	301623.9	192073.5	56000	1090000
Sales price in year 2012	172	267055.1	161450.5	85000	930000
Sales price in year 2013	153	261627.5	161881.9	85000	1050000
Sales price in year 2014	273	302842.6	183821.1	60000	1087500
Sales price in year 2015	273	313085.8	197578.1	70000	1350000
Sales price in year 2016	230	373523.2	231540.1	65000	1300000
Sales price in year 2017	227	410655.3	292806.6	83000	1490000
<i>Control group</i>					
Sales price in year 2005	39,169	220990.5	132372	50250	1485000
Sales price in year 2006	40,474	231719.5	143225.8	51000	1466101
Sales price in year 2007	40,820	241660.3	151476.9	50500	1499000
Sales price in year 2008	35,387	243598	151740.7	50500	1499000
Sales price in year 2009	27,669	233962.6	144688.5	50625	1495000
Sales price in year 2010	27,299	239572.5	149770.8	50150	1480000
Sales price in year 2011	24,790	238213.3	156298.2	51500	1495000
Sales price in year 2012	24,994	221113.9	141715.6	51000	1495000
Sales price in year 2013	23,594	220262	146204	50750	1475000
Sales price in year 2014	33,662	229322.4	151693.8	50750	1487500
Sales price in year 2015	40,754	239677.5	159306	50100	1495000
Sales price in year 2016	45,827	255317.3	168256.4	51000	1495000
Sales price in year 2017	41,193	281077.7	178374.2	51850	1495000