Residential migration and the Covid-19 crisis: Towards an urban exodus in France?*

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Abstract

Much has been written about the potential effect of the Covid-19 crisis on residential mobility. Based on owner and buyer estimates performed from January 2019 to September 2021 on the platform Meilleurs Agents, we are able to build flows of mobility intentions and analyze, using logit and nested logit models, how the pandemic has changed the probability that both urban and rural residents intend to relocate. We find that after a time of shock during the first lockdown, the desire to migrate, both to rural municipalities and to other catchment areas, increased as the pandemic and the restrictive measures continued, and was particularly pronounced after the end of the third and last lockdown.

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1 Introduction

Since the first lockdown was implemented in March 2020 to contain the Covid-19 pandemic, urban exodus has become a highly popular topic in the press. Households are described as eager to move to bigger homes, with large green spaces, in less dense areas. According to a recent survey by Meilleurs Agents[1], among those who have changed their primary residence since July 2020 or plan to do so before January 2022, half of them changed their search criteria to have a garden (for 39% of them) to be closer to nature (for 34% of them) or to live in a smaller city (for 19% of them).

Attraction to rural areas is not a new phenomenon. Over the previous three decades, a report from Observatoire des Territoires (2018) concludes that France has experienced a decrease in population concentration, with big centers losing attractiveness while the surrounding areas attract new inhabitants. According to D'Alessandro et al. (2021), between 2007 and 2017, average annual population growth was 0.66% in rural areas, yet only around half of that (0.38%) in urban areas. The attraction of rural areas seems to mainly concern rural suburban cities.

In 2017, 26.9% of people moving from an urban area to a rural area moved to a city in the catchment zone of a center (D'Alessandro et al. (2021)). In addition, though French people move more than their neighbors, with 11% of the French population moving each year compared to 9% on average in Europe, Observatoire des Territoires (2018) notes that French people move less and less further since 1990. Three-quarters of movers choose a location close to their current residence (in the same "département"). This report also shows that the mobility rate is conditioned to age and education level. In particular, mobility decreases with age and increases with education level. Similarly, the type of move depends on the individual's socio-professional category. Executive professions, higher intellectual professions and intermediate professions tend to move further, between Paris and other big cities, while employees are more concerned by smaller moves. Housing market constraints prevent all social classes from moving in the same direction or to the same places, which may reinforce social segregation.

In 2019, a survey from Ifop[2] revealed that 57% of people living in urban areas wanted to leave. Three main obstacles prevented them from taking the leap, specifically, the

[1]Toluna study for Meilleurs Agents conducted from July 5 to 11, 2021 on 2,722 people representative of the French population, including 1,133 people who have moved or intend to move.

[2]`https://www.ifop.com/publication/le-retour-a-la-campagne/`

lack of services (for 60%), the lack of transport infrastructures (for 53%), and difficulties in accessing employment (for 46%). The use of telework since Covid-19 crisis, first widespread and mandatory and then more balanced and negociated between workers and employers, could remove this third obstacle to urban exodus, at least partially[3]. Since March 2020, Meilleurs Agents has observed a 13% increase in transaction volume in rural areas[4]. It also seems to be reflected in the evolution of prices[5]: in 2020, Paris experienced a decline in prices, unlike rural areas that experienced a greater increase in prices than the largest cities. The increase mainly concerns rural suburban areas[6] with a 9.7% increase in 2020 and rural areas with a large proportion of secondary homes.

To understand if we are really facing an urban exodus with Covid-19, we need to link each mover's place of departure and place of destination, i.e., to observe residential mobility paths, over the recent period. In the next two or three years, INSEE data from the population census and INSEE's next housing survey will make it possible to observe the actual mobility paths precisely. In the meantime, very eclectic data sources have been used to proxy attractive territories (like school enrolments). The French statistics institute INSEE and Orange[7] published some preliminary figures that have approximated the population movements before and after the start of the first lockdown thanks to mobile phone relay antennas. These figures, available only over a very short period, concern all population movements, including those of tourists who have returned to their homes and those of households who have spent the lockdown in a family residence. The originality of our paper is to exploit over a long period of almost three years processing traces left by users on real estate platforms to get information on the place where the user wishes to settle, based on their current place of residence. Our objective is to provide some early answers to establish whether the Covid-19 crisis has modified the intentions of residential location of French people, by analyzing users' searches on the Meilleurs Agents website. We reconstruct 100,193 flows of residential mobility intentions for users that first

[3]In their survey, Meilleurs Agents see that around 50% of workers consider pursuing work-from-home after the pandemic. However, 60% of them would like to work remotely only two days or less per week and only 19% would like to work remotely full-time.

[4]2021 Meilleurs Agents Press Conference:"Quelles sont les nouvelles tendances pour le marché immobilier ?" `https://backyard-static.meilleursagents.com/press/6b615242cec200af47aec27515746e25a8174bf6.pdf`

[5]Meilleurs Agents Real Estate Price Index of September 1, 2021

[6]Rural suburban areas are rural cities that are part of catchment areas of cities with more than 50,000 inhabitants.

[7]Preliminary results are available online: https://www.insee.fr/fr/information/4477356

estimate a real-estate good with an owner status and then subsequently estimate another one with a buyer status, tracking them with their userID. These observations are split between 83,991 observations for users who originally live in an urban city and 16,202 observations for users who originally live in a rural city. The estimate tool also provides information on the characteristics of the dwelling estimated, beyond its location. As users need specific information to fill in the form, they generally use it to estimate the price of a dwelling that they visited or they are going to visit, in order to make an offer close to market price. This is a more advanced indicator that we can track to get information on migration intentions almost in real time.

We first estimate binary logit models, separately on urban resident and rural resident sub-samples, for two different dependent variables: the probability of staying in the same catchment area[8] and the probability of choosing an urban destination. We also provide results for a finer spatial decomposition of the French territory and perform an heterogeneity analysis. We then estimate nested logit models, again separating urban residents and rural residents, to analyze the intentions of residents to move from a set of mutually exclusive alternatives and allowing certain alternatives in the choice set to be correlated. At the root node, residents choose whether to stay in the same catchment area or to intend to move to another one and in each subset, they choose between an urban or rural municipality. In each one of these models, we focus on the sign and coefficient of the variable capturing the Covid effect. We first consider the binary variable pre- and post-Covid-19 and then decompose the timing of the post-Covid period. In all the analysis, we include a wide range of structural and socio-economic variables describing the origin and the destination. The selection of control variables is done by elastic net (Zou and Hastie, 2005).

With respect to our choice of models, in discrete choice models (McFadden, 1978), the location choice is the dependent variable. The choice is made among a set of mutually exclusive alternatives and decision makers choose the alternative that provides them the highest level of utility. Independent variables describe the alternative itself with location characteristics (socio-economic environment) and dwelling characteristics (area, number of rooms, etc.). As we cannot observe all characteristics of the alternatives, an error term is introduced in the model (Train, 2003). The nested logit model has the advantage of overcoming the Independence of Irrelevant

[8]This zoning, which is consistent with the zonings used by Eurostat and the OECD, has been used as the zoning of reference since 2020 in France. It divides the territory in more than double the number of "zones d'emploi", thus enabling a more detailed analysis, and contains the category "Hors attraction des villes", which is of particular interest for our study.

Alternatives (IIA) problem, which arises when, among a set of alternatives, odds of choosing A over B does not depend on whether some other alternative C is present or absent. Contrary to a multinomial logit model, the nested logit model groups together alternatives suspected of sharing unobserved effects into nests, which sets up the disturbance term correlation that violates the assumption. In other words, alternatives are gathered by group in which IIA assumption holds but does not hold across groups. These nested logit models can be estimated only if there is a limited number of alternatives. Moreover, a reference alternative needs to be set and all interpretations will be performed relative to this alternative.

Discrete choice models are used by most empirical studies to describe and understand household location choices. In addition to national factors (mortgage, inflation rates, demographic changes and economic context), the literature distinguishes among three categories of determinants. The first concerns the trade-off between prices (and thus dwelling size) and accessibility to employment (Waddell, 1993; Srour et al., 2002; Rivera and Tiglao, 2005; Cornelis et al., 2012). Additionally, the sensitivity to the distance to place of work may vary if remote working is available (Ettema, 2010, in the Netherlands). The second family of determinants groups spatial and social amenities, e.g. school quality (Pinjari et al., 2009; Kim et al., 2005; Bayoh et al., 2006), service density (Zondag and Pieters, 2005), security (Filion et al., 1999), presence of green spaces (Gueymard, 2006) or quality of the neighborhood (De Palma et al., 2005, 2007, Goffette-Nagot and Schaeffer, 2013). The last group of determinants is household characteristics, i.e., income and household size (Waddel, 1993) and life cycle (Walker and Li, 2007; Habib and Miller, 2007). Regarding all these determinants, Schirmer et al. (2014) noticed that household preferences should be compared with the same level of choice. Indeed, in their literature review, Schirmer et al. (2014) point out that early studies used discrete choice models at an aggregated level (choice of zone) but that building- or unit-level data should be preferred (Habib and Miller, 2009; Lee and Waddell, 2010).

How the Covid-19 crisis has changed the determinants of residential mobility is obviously an emerging subject in the literature. Based on the New York Fed Consumer Credit Panel/Equifax microdata, Li and Su (2021) observe that since the Covid-19 pandemic Americans both left immediate dense surroundings of city centers to move to more distant suburbs with lower density and left high density population MSAs for low density population MSAs, thus partially counterbalancing the spatial sorting. They then use a spatial equilibrium model to analyze the welfare effects of these migration changes. Ramani and Bloom (2021) use both data from address changes

from the US Postal Service to estimate migration patterns and real estate rents and price indices from the website Zillow to proxy for real estate demand. They find that city CBDs and dense areas experience relative price decreases compared with less dense areas. They interpret it as a donut effect for prices, which seems to be limited to highly populated, dense cities. Additionally, they find that migrations across metropolitan areas is a smaller phenomenon than migration within metropolitan areas. Introducing both part-time and full-time work-from-home in their equilibrium model allow them to explain this by the fact that telecommuting will mainly be part-time and thus, there remains a significant distance to employment location. In other words, households are prepared to move away but not too far. Also relying on Zillow data, in addition to productivity, amenity and industry indices, Brueckner et al. (2021) find no support for their model's prediction of falling prices and rents in low-amenity cities with high work-from-home potential. They also show that work-from-home imposes capital losses on real estate owners in high-productivity cities and capital gains to renters. Furthermore, as remote working reduces commuting cost, they found that it increases disutility for places with high crime rates and high taxes. This phenomenon makes the suburbs more attractive.

We contribute to this literature by carrying out the first study about the consequences of Covid-19 on the intentions of residential mobility in France. We show that the pandemic modified the intention to relocate, through both the choice of the catchment area and the location on the urban-rural gradient. The Covid-19 effect varies with the timing of the pandemic, the appeal for other catchment areas and rural cities being the strongest after the end of the last lockdown. Moreover, since March 2020, the odds that an urban resident searches for a residence in an urban city rather than in a rural city is 0.923 times lower and even decreases to 0.644 for a resident in a city center ("pôle urbain") also searching for a residence in the city centers, whereas it has no impact on the choice of a rural resident.

The article is organized as follows. We present the data in Section 2 and the methodology in Section 3. In the fourth section, we analyze the results from the discrete choice models. Finally, we conclude and highlight the challenges for further research.

2 Data

2.1 Platform Data Description

The Meilleurs Agents platform is the leader in online real estate estimates and information in France and attracts 2.4 million unique visitors per month. 500,000 online estimates per month are done by these users[9]. The use of these day-to-day data in the academic literature is very recent and promising, since it makes it possible to explore users' behaviour by following users at each step of their home-buying project. Traffic data from the Meilleurs Agents platform has already been used in a Ph.D thesis by Pierre Vidal (2021) to analyze matching and pricing mechanisms on the real estate market. Van Dijk et Francke (2018), Rae et Sener (2016) and Piazzesi et al. (2020) also exploit platform traffic data to calculate market tightness indicators and to analyze market segmentation.

We can track users that login to the Meilleurs Agents platform with their user ID, which is required for dwelling estimates (but not for consulting ads for instance). The estimate tool takes the shape of a form in which users give information on their status (owner, owner-seller or buyer), the characteristics of the dwelling estimated and its location. In the end, the tool returns a price range for the dwelling. For users that fill in the form with the buyer's status, this tool intervenes at an advanced stage of the project. Indeed, because users need specific information, they generally use it to estimate the price of a dwelling that they have visited or they are going to visit: they want to have an idea of the price to make an offer close to market price. Consequently, it is the most advanced indicator along the buying process that we can follow as it reveals a strong intention to buy (without being entirely sure that the purchase was made).

In order to reconstruct an intended mobility path, in our database we select the users that make both an estimate with the owner status and then an estimate with a buyer status. We thus have information on the starting location (from the owner estimate) and on the desired arrival location (from the buyer estimate). Moreover, we have information on the features of the current residence and of the searched one, detailed in Table 9 in appendix.
The sample exclusively consists of homeowners. Beyond credit access conditions, income or anticipation of price changes, the choice of occupancy status is influenced by position in the life cycle (see Artle and Varaiya, 1978 for the first theoretical

[9]Figures for November 2021.

model that introduced life cycle in the determinants of home-ownership). The rate of home-ownership sharply increases with the stabilization of professional situations at the start of a professional career. The birth of children often leads to home-owning couples to opt for a house with more space on the outskirts, with a stable peak zone reached around at 60 years of age. The rate of home-ownership also varies over the territory, with a larger share of owners in the crowns of local hubs, periurban spaces and less densely populated hinterland than in the centers of cities (see Les conditions de logement en France, édition 2017 - Insee Références).

We cannot rule out potential selection bias linked to the use of remote matching tools, either in terms of user education or types of research (short-distance versus long-distance)[10]. Unfortunately, we do not have information about users (e.g. age or income) and their household (e.g. number of children living at home) though the literature has stressed their role in explaining residential mobility choices. However, the size of the dwelling and the number of rooms can capture part of this effect because it is likely to be correlated with family size. Another data limitation is that Meilleurs Agents is not equally well-known everywhere in France, with activity being mainly driven by the Paris area and areas of other big cities. We also need to keep in mind that the increase in website traffic is simultaneous to our period of study.

2.2 Platform data processing

We process the data from our database in several ways. Firstly, we remove the outliers. Estimates of dwellings with a very small or a very big area have been eliminated to keep those with an area between 9 and 250 square meters. In addition, we ensure consistency between the area and the number of rooms. We also remove estimates that return a very low price or a very high price, i.e., for which the price is above the half of the first percentile and under twice the 99^{th} percentile of prices estimated. Then, to avoid automated estimates in our data set, we remove the percentile of users that made the highest number of estimates in the period.

Secondly, we account for multiple estimates by the same user. Regarding buyer estimates, if a user makes several estimates of the same dwelling, we keep only the most recent one. Regarding owner estimates, if a user makes several estimates in the

[10]The average distance calculated from the INSEE Fichiers détails "Migrations résidentielles des individus" between previous and new housing is close to 80 km. In the same time, according to a CSA Research study for Cofidis France published in 2019, the average distance between previous and new housing (for both renters and home-owners) is 118 km, regardless of the channel through which they moved (platform, local real estate agency, etc.). In our dataset of home-owners, the average distance is in between, with 103 km.

same city of the same address (or of another address but with an identical area or an identical number of rooms), we keep the oldest one because it represents the first intention to move. In the event of several searches within the same month by the same user, we keep only the last estimate because we infer that the user's visits for the previous properties were unsuccessful. Thirdly, among all possible types of property that are estimated (principal residence, secondary residence, dwelling owned for investment purposes), we only keep the estimates done for principal residences.[11]

Once this data processing is complete, we keep all owner estimates (i.e., those who have an intention to move and those who do not) and we merge them by user ID with buyer estimates. As a result, we have information concerning the owner estimate (location and characteristics of the principal residence) and the buyer estimate (location and characteristics of the principal residence, as well as location and characteristics of the desired property).[12] In the latter case, the rows are links between an estimate as an owner and an estimate as a buyer.

Finally, in order to avoid searches for investment purposes, we removed observations when dwelling size between the property and the desired dwelling were too different. We removed extreme outliers that are in the first percentile (area difference lower than -157 square meters) and last percentile (area difference above 132 square meters).

Our database contains all owner estimates from February 22, 2012, to September 20, 2021, and all buyer estimates from January 1, 2019, to September 20, 2021, which provides relatively similar periods before and after the beginning of Covid-19.

[11] As it does not provide any information on the intention to move, we also removed links when owner and buyer estimates are done for the same dwelling (i.e., links between the property and itself), which could result from tests carried out by the same user. However, we have kept this user in the database in case he/she carries out estimates for other properties.

[12] We postulate that the typical user first estimates the value of the property he/she owns to have an approximate idea of his/her maximum budget before starting his/her search for a new home, and then makes estimates for dwellings he/she visits to ensure that properties are not overpriced. We cannot, however, completely exclude the case where a user first makes an estimate as a buyer and then makes an estimate as an owner.

2.3 Characteristics of the location

With regards to location, a key factor to address our question is whether the dwelling is located in a rural or an urban area. For that purpose, we use the rural zoning from the Observatoire des Terriroires[13], which splits French cities between 4,193 urban cities and 30,772 rural cities based on their density. Figures 4 and 5 in appendix map the territorial coverage of our owners and buyers estimates.

We also use the INSEE zoning in catchment areas[14] to characterize more precisely the nature of mobility, accounting for the area of influence of major French cities. A catchment area is a set of municipalities, in a single block and without enclaves, which defines the extent of the influence of a population and employment pole on surrounding municipalities, this influence being measured by the intensity of commuting. Inside a catchment area, there is a "pôle" (cluster) and "couronne" (periphery). The "pôle" is determined with respect to thresholds of population density and employment level. Among the cities that belong to the pôle, the city with the highest population is the "Commune centre". Other municipalities that send at least 15% of their workers to work in the pôle constitute the "couronne" of the area. Figure 6 in appendix maps this split in 699 "aires d'attraction des villes" (as defined by INSEE and based on the intensity of commuting to the employment cluster). Additionally, catchment areas are ranked according to their population size. Figure 7 in appendix maps this zoning.

Furthermore, we characterize municipalities using a large range of socioeconomic data from INSEE, specifically, the median population income, services and equipment levels, age distribution of the population and structure of the housing stock.[15]

The list of all variables can be seen in Table 9 in appendix.

2.4 Descriptive Statistics

Our dataset contains 100,193 observations of intentions to move from 01/01/2019 to 20/09/2021 through an estimation of a property to buy on the platform. These observations are split between 83,991 observations for users who originally live in a

[13] `https://www.observatoire-des-territoires.gouv.fr/typologie-urbain-rural`

[14] Aire d'Attraction des Villes in French.

[15] See Delance and Vignolles, 2017, for an analysis of the key factors influencing residential mobility.

urban city and 16,202 observations for users who originally live in a rural city. The dataset contains 80,662 different users including 66,507 users that have a unique link and 14,155 users that have several links. Table 1 shows that 40.5% of our sample concern dwelling searches between January 2019 and the announcement of the first lockdown (12 March 2020) and 59.5% after. We decompose the timing after Covid-19 into 6 periods that are described in Appendix 1. We show that our sample splits into 2.6%, 4.5% and 4.4% respectively for each of the three lockdowns, 18.4% in the intermediate period between the first two lockdowns, 13.6% in the intermediate period between the last two lockdowns, and 16% afterwards. Interestingly, after dividing the number of estimates with respect to the number of days in the period considered, we show that the first lockdown was a time of shock leading to a decrease by more than half of the number of buyer estimates on the platform. It then sharply increased just after the first lockdown to such an extent that it exceeded the level before Covid-19, with an average of 108.6 estimates per day against 93. After a decrease during the second lockdown, this number continued to grow until the end of the last lockdown, reflecting an increasingly marked desire to migrate as the pandemic (and the restrictive measures) continue.

Table 1: Evolution of buyers estimates with respect to the timing of the crisis

	Number of days	Number of buyers estimates	%tage of buyers estimates	Average number of estimates per day
Before	436	40,557	40.5	93
Lockdown 1	60	2,572	2.6	42.9
Intermediate 1	170	18,468	18.4	108.6
Lockdown 2	49	4,519	4.5	92.2
Intermediate 2	105	13,641	13.6	123.7
Lockdown 3	33	4,400	4.4	133.3
After	141	16,036	16	113.7
Sum	994	100,193	100	

Regarding the place of origin of people with the intention to move, we see almost no difference before and after Covid-19. By contrast, we observe an effect on the choice of destination. Searches in rural areas represented 16.7% before the Covid-19 crisis and have increased to 20.4% since the beginning of the pandemic. If we look at the timing of the crisis (Table 2), we observe that the rate of searches in rural areas is the highest during the first lockdown, with 22.6% of searches. It then slightly dropped (still remaining above the pre-Covid level) during the period from the end

of the first lockdown to the end of second lockdown. Since then, rural appeal has been persistent, showing moderate growth.

Table 2: Evolution of buyers estimates in rural versus urban areas with respect to the timing of the crisis

	Start date	End date	rural %	urban %
Before	01/01/2019	11/03/2020	16.7	83.3
Lockdown 1	12/03/2020	10/05/2020	22.6	77.4
Intermediate 1	11/05/2020	27/10/2020	19.8	80.2
Lockdown 2	28/10/2020	15/12/2020	18.6	81.4
Intermediate 2	16/12/2020	30/03/2021	20	80
Lockdown 3	31/03/2021	02/05/2021	20.5	79.5
After	03/05/2021	20/09/2021	21.5	78.5

The demand for houses follows a similar trend with respect to the timing of the crisis, as shown by Table 3, which reveals an increasing desire to live in a house.

Table 3: Evolution of buyers estimates for flats versus houses with respect to the timing of the crisis

	Flats (%)	Houses (%)
Before	52.7	47.3
Lockdown 1	45.8	54.2
Intermediate 1	47	53
Lockdown 2	50.3	49.7
Intermediate 2	48.6	51.4
Lockdown 3	46.7	53.3
After	47.2	52.8

The analysis of trajectories of intention to migrate (see Table 4) shows urban-urban trajectories were largely predominant before the crisis with three-quarters of intentions, followed by urban-rural (9.2%), rural-urban (8%) and rural-rural (7.5%) trajectories. During the first lockdown, intentions of urban-urban trajectories decreased to two-thirds, essentially due to the simultaneous rise of rural-rural and urban-rural trajectories.

The biggest increase over the period concerns urban to rural migration intentions, from 9.2% to 12.2%.

Table 4: Analysis of trajectories of intention to migrate

	Stay rural (%)	Stay urban (%)	Rural to urban (%)	Urban to rural (%)
Before	7.5	75.3	8	9.2
Lockdown 1	10.4	67.3	10.1	12.2
Intermediate 1	8.3	72.7	7.5	11.5
Lockdown 2	8.1	73.6	7.8	10.5
Intermediate 2	8.5	71.8	8.1	11.6
Lockdown 3	9.2	71.4	8.1	11.3
After	8.7	70.1	8.3	12.9

Lastly, we combine the categorization of catchment areas with the intention to move to a rural versus urban zone. Before the Covid-19 crisis, 61% of users had the intention to move to an urban city in the same catchment area, whereas this decreases to 55.5% from the beginning of the crisis, as shown by Table 5.

Table 5: Evolution of the decision to move to another catchment area combined with the destination choice "rural versus urban"

	Diff. area Rural	Diff. area Urban	Same area Rural	Same area Urban
Search before Covid	9.1	22.3	7.6	61
Search after Covid	11.8	24.1	8.6	55.5

3 Empirical specifications

We estimate two binary logit models and then a nested logit model. These models are estimated on two different sub-samples, one for urban residents and the other for rural residents. We also alternatively consider the effect of a binary variable that distinguished between pre-Covid and post-Covid periods. In addition, we use elastic net to select the features that are relevant for all specifications.

3.1 Logit model

Consider N individuals indexed by i that are confronted with two mutually exclusive alternatives. Let y_i denote the response variable of individual i, with for instance:

$$y_i = \begin{cases} 0 & \text{if individual } i \text{ has the intention to move to a rural area} \\ 1 & \text{if individual } i \text{ has the intention to move to a urban area} \end{cases}$$

The discrete choice model is:

$$y_i = x_i'\beta + \mu_i \tag{1}$$

with x_i the vector of explanatory variables, β the vector of parameters and μ_i the error term. The conditional probability that the dependent variable y_i takes the value 1 is modeled as:

$$p_i = P(y_i = 1|x_i) = F(x_i'\beta) \tag{2}$$

After the logistic transformation of the function F that maps $x_i'\beta$ into the interval [0,1], we get the response probabilities:

$$P(y_i = 1|x_i) = \frac{e^{x_i'\beta}}{1 + e^{x_i'\beta}} = \frac{1}{1 + e^{-x_i'\beta}} \tag{3}$$

We estimate this logit model with maximum likelihood.
Since the parameters β cannot directly be interpreted as marginal effects on the dependent variable y_i, we calculate the marginal effect of a change in x_{ik} for every explanatory variable x_k on the expected value of the response variable y_i:

$$\frac{\partial E(y_i|x_i)}{\partial x_{ik}} = \frac{\partial P(y_i = 1|x_i)}{\partial x_{ik}} = \frac{e^{x_i'\beta}}{(1 + e^{x_i'\beta})^2}\beta_k \tag{4}$$

3.2 Nested Logit Model

We then estimate a nested logit model, which has the advantage of allowing for dependence across responses by grouping alternatives into groups called nests (Thurston et al., 2009). It allows for some correlation in the error terms in the same nest, while still assuming that error terms of different nests are uncorrelated. In other words, the assumption of independence of irrelevant alternatives holds within each nest.

The choice of the location is such that each individual first chooses among the 2 limbs that represent the choice of intending to stay in the same catchment area or to change to another one and, conditionally on it, the choice of a rural or a urban municipality is done.

In a general framework (see Cameron and Trivedi, 2005) with J limbs indexed by j and K_j branches indexed by k in each limb j, the joint probability p_{jk} of being

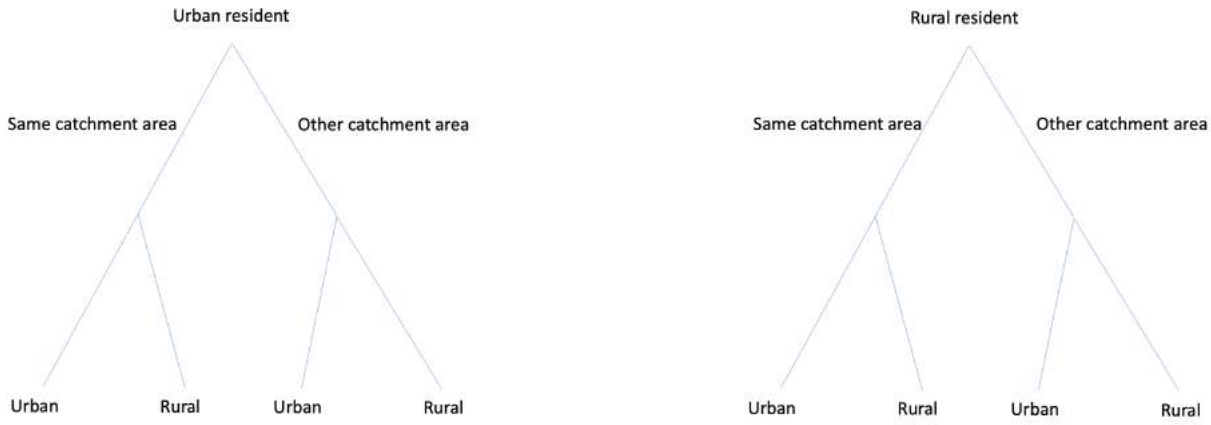

Figure 1: Diagram of decision tree

on limb j and branch k amounts to the probability p_j of choosing limb j multiplied by the probability $p_{k|j}$ of choosing branch k conditional on being on limb j, i.e.,: $p_{jk} = p_j * p_{k|j}$.

Using the generalized extreme value (GEV) distribution, we get:

$$p_{jk} = p_j * p_{k|j} = \frac{e^{\mathbf{z'_j}\alpha + \rho_j I_j}}{\sum_{m=1}^{J} e^{\mathbf{z'_m}\alpha + \rho_m I_m}} * \frac{e^{\mathbf{x'_{jk}}\beta_\mathbf{j}/\rho_j}}{\sum_{l=1}^{K_j} e^{\mathbf{x'_{jl}}\beta_\mathbf{j}/\rho_j}} \tag{5}$$

where the vector of explanatory variables $\mathbf{z_j}$ varies only over limbs and the vector of explanatory variables $\mathbf{x_{jk}}$ varies over both limbs and branches. The respective vectors of parameters are α and $\beta_\mathbf{j}$. Finally, ρ_j is a scale parameter equal to $\sqrt{1 - Cor[\epsilon_{jk}, \epsilon_{lk}]}$. In the case $\rho_j = 1$, which corresponds to independence of ϵ_{jk} and ϵ_{lk}, we obtain a multinomial logit model.

4 Results

We first analyze the intention to change one's catchment area ("Aire d'attraction des villes"). Our dependent variable is a binary variable reflecting a change of "state" (i.e., from one catchment area to another one) so that the estimated coefficients capture the impact of the variables on the probability of this change of state. The control of numerous characteristics of the origin and destination cities enables a precise understanding of the structural and locational characteristics of housing that

households look for in another catchment area. Most intentions to move, i.e. two-thirds, are in the same catchment area, as shown by descriptive statistics over the whole period, which reflects a strong attachment to the territory of origin because of family, friends or work. Table 6 reports the results of binary logit models where the binary dependent variable is equal to 1 when residents have the intention to stay in the same catchment area and 0 if they have the intention to move to another one. The first three columns correspond to logit models estimated for the sub-sample of urban residents, whereas the last three columns give the results for logit models estimated for the sub-sample of rural residents. In columns (1) and (4), we analyse how the Covid-19 crisis, which started in March 2020, has modified searches afterwards. We show that since the beginning of the crisis, the odds of an urban resident searching for a residence in the same catchment area rather than in another one is 0.87 times lower. The pandemic has thus led to a greater desire to relocate outside of the catchment area. The category to which the municipality of origin or destination belongs has i) very significant effects on the intention to stay in the same catchment area, e.g., with suburban residents (corresponding to origin:"couronne") being the most attached to their catchment area and ii) almost no role on the intensity of the Covid-19 effect, as shown by the interaction terms in columns (2) and (5). If we detail the timing of the crisis for a urban resident (column (3)), we show that the effect of Covid-19 pandemic is strongly significant in all periods, except during the first lockdown, which appears as a period of inaction, where people either have difficulties projecting into the future or are waiting for the end of the lockdown to start a real estate project, probably due to the possibility to visit properties again.

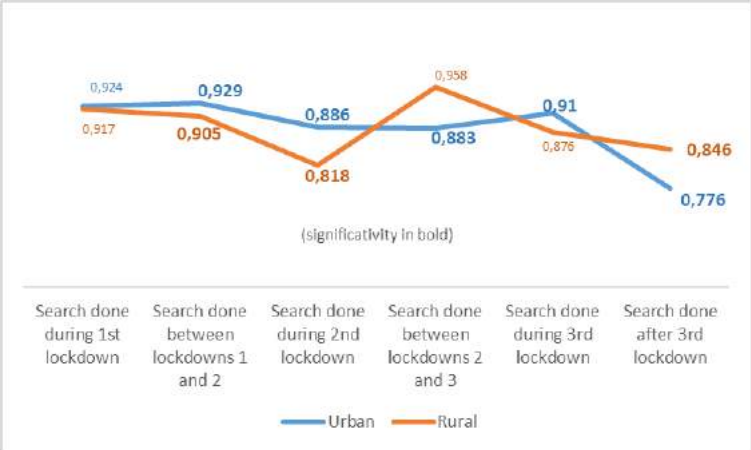

Figure 2: Probability of staying in the same catchment area: Odds ratios

As shown by figure 2, the more we advance in time, the lower the probability of staying in the same catchment area is. The coefficient goes from 0.929 between the first two lockdowns to 0.776 after the end of the third lockdown. The prolongation of the crisis results in a reinforced desire for mobility for urban residents.

Table 6: Logit estimation results for the probability of staying in the same catchment area; Odds Ratios

	Dependent variable: staying in the same catchment area					
	Urban origin			Rural origin		
Search done since March 12 2020	0.870***	0.815***		0.892***	1.296	
	(0.019)	(0.033)		(0.035)	(0.222)	
Search done during 1st lockdown			0.924			0.917
			(0.059)			(0.098)
Search done between lockdowns 1 and 2			0.929***			0.905**
			(0.026)			(0.048)
Search done during 2nd lockdown			0.886***			0.818**
			(0.045)			(0.085)
Search done between lockdowns 2 and 3			0.883***			0.958
			(0.029)			(0.053)
Search done during 3rd lockdown			0.910**			0.876
			(0.046)			(0.083)
Search done after 3rd lockdown			0.776***			0.846***
			(0.027)			(0.049)
Origin : "commune du pôle"	1.275***	1.221***	1.257***	1.129	2.763**	1.134
	(0.044)	(0.053)	(0.043)	(0.295)	(0.434)	(0.295)
Origin : "commune du pôle secondaire"	1.195**	1.218	1.179*			
	(0.086)	(0.136)	(0.085)			
Origin : "couronne"	1.522***	1.437***	1.508***	3.545***	4.433***	3.552***
	(0.047)	(0.057)	(0.046)	(0.122)	(0.178)	(0.122)
Origin : "hors attraction des pôles"	0.343**	0.200**	0.347**	1.646***	1.863***	1.649***
	(0.430)	(0.719)	(0.430)	(0.127)	(0.190)	(0.127)
Destination : "commune du pôle"	2.525***	2.495***	2.513***	1.472***	1.445***	1.478***
	(0.043)	(0.053)	(0.043)	(0.082)	(0.113)	(0.082)
Destination : "commune du pôle secondaire"	2.406***	2.416***	2.399***	2.316***	1.811**	2.317***
	(0.091)	(0.142)	(0.091)	(0.190)	(0.287)	(0.190)
Destination : "couronne"	2.295***	2.239***	2.287***	2.464***	2.480***	2.470***
	(0.044)	(0.052)	(0.043)	(0.069)	(0.087)	(0.069)
Destination : "hors attraction des pôles"	0.022***	0.021***	0.022***	2.013***	2.237***	2.019***
	(0.338)	(0.583)	(0.338)	(0.087)	(0.122)	(0.087)
Search done since March 12 2020 * Origin : "commune du pôle"		1.073			0.209***	
		(0.046)			(0.599)	
Search done since March 12 2020 * Origin : "commune du pôle secondaire"		0.970				
		(0.169)				
Search done since March 12 2020 * Origin : "couronne"		1.100*			0.679*	
		(0.053)			(0.219)	
Search done since March 12 2020 * Origin : "hors attraction des pôles"		2.416			0.798	
		(0.893)			(0.237)	

Continued on next page

Table 6 – continued from previous page

	Dependent variable: staying in the same attraction area					
	Urban origin			Rural origin		
Search done since March 12 2020 * Destination : "commune du pôle"		1.022			1.027	
		(0.051)			(0.128)	
Search done since March 12 2020 * Destination : "commune du pôle secondaire"		0.995			1.522	
		(0.174)			(0.368)	
Search done since March 12 2020 * Destination : "couronne"		1.042			0.994	
		(0.047)			(0.086)	
Search done since March 12 2020 * Destination : "hors attraction des pôles"		1.120			0.853	
		(0.712)			(0.134)	
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Observations	83,991	83,991	83,991	16,202	16,202	16,202
Log Likelihood	−37,496	−37,492	−10,105	−10,091	−10,085	−10,088
Akaike Inf. Crit.	75,113	75,121	20,332	20,256	20,258	20,260
Note:						*p<0.1; **p<0.05; ***p<0.01

The last three columns of Table 6 give the results of the corresponding logit models estimated on the sub-sample of rural residents. For these inhabitants of rural municipalities, the post-Covid decrease in the probability of staying in the same area is less pronounced. We estimate that since the beginning of the crisis, the odds that a rural resident searches for a residence in the same catchment area rather than in another one is 0.892 times lower. This post-Covid effect is essentially driven by what happens after the end of the third lockdown as only the coefficient associated to the last period after May 2, 2021 is significant at 1%. Table 10 in appendix presents the full results with all control variables selected by elastic net.

We complete the analysis by estimating logit models where the binary dependent variable is equal to 1 when the resident has the intention to move to an urban city and 0 to a rural city. Table 7 reports the results for the variables of interest related to Covid-19 and the category to which the municipality of origin or destination belongs, and Table 11 in appendix gives the results with all control variables selected by elastic net.

Table 7: Logit estimation results for the probability of choosing urban over rural; Odds Ratios

	Dependent variable: choose urban over rural					
	Urban origin			Rural origin		
Search done since March 12 2020	0.923*	0.644***		0.991	1.016	
	(0.045)	(0.167)		(0.071)	(0.412)	
Search done during 1st lockdown			0.802**			1.092
			(0.094)			(0.196)
Search done between lockdowns 1 and 2			0.902**			0.913
			(0.042)			(0.101)
Search done during 2nd lockdown			0.939			1.082
			(0.076)			(0.171)
Search done between lockdowns 2 and 3			0.872***			0.945
			(0.047)			(0.108)
Search done during 3rd lockdown			0.849**			0.899
			(0.074)			(0.160)
Search done after 3rd lockdown			0.754***			1.111
			(0.044)			(0.102)
Origin : "commune du pôle"	1.128	0.965	1.246***	0.186***	0.241*	0.187***
	(0.077)	(0.107)	(0.055)	(0.560)	(0.773)	(0.560)
Origin : "commune du pôle secondaire"	1.425*	1.426	1.347**			
	(0.186)	(0.301)	(0.134)			
Origin : "couronne"	1.366***	1.331***	1.949***	0.962	1.361	0.962
	(0.085)	(0.109)	(0.059)	(0.225)	(0.333)	(0.225)
Origin : "hors attraction des pôles"	3.056**	25.277***	3.187**	0.837	0.971	0.834
	(0.565)	(1.065)	(0.579)	(0.244)	(0.368)	(0.245)
Destination : "commune du pôle"	10.069***	8.163***	3.822***	13.705***	7.431***	13.529***
	(0.181)	(0.306)	(0.148)	(0.281)	(0.417)	(0.282)
Destination : "couronne"	0.378***	0.311***	0.023***	0.493***	0.348***	0.490***
	(0.100)	(0.149)	(0.063)	(0.159)	(0.220)	(0.160)
Destination : "hors attraction des pôles"	0.033***	0.023***	0.0001***	0.047***	0.039***	0.047***
	(0.203)	(0.364)	(0.202)	(0.380)	(0.573)	(0.381)
Search done since March 12 2020 * Origin : "commune du pôle"		1.282**			0.819	
		(0.116)			(1.122)	
Search done since March 12 2020 * Origin : "commune du pôle secondaire"		1.011				
		(0.376)				
Search done since March 12 2020 * Origin : "couronne"		1.047			0.560	
		(0.110)			(0.411)	
Search done since March 12 2020 * Origin : "hors attraction des pôles"		0.044**			0.773	
		(1.265)			(0.458)	
Search done since March 12 2020 * Destination : "commune du pôle"		1.383			2.786*	
		(0.368)			(0.542)	
Search done since March 12 2020 * Destination : "commune du pôle secondaire"		0.962			0.0001	
		(6,676.818)			(243.726)	
Search done since March 12 2020 * Destination : "couronne"		1.339*			1.735**	
		(0.165)			(0.242)	

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Table 7 – continued from previous page

	Dependent variable: choose urban over rural					
	Urban origin			Rural origin		
Search done since March 12 2020 * Destination : "hors attraction des pôles"		1.583			1.375	
		(0.431)			(0.745)	
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Observations	83,991	83,991	83,991	16,202	16,202	16,202
Log Likelihood	−6,956	−6,949	−13,902	−2,735	−2,730	−2,733
Akaike Inf. Crit.	13,994	13,996	27,873	5,546	5,551	5,552
Note:		*p<0.1; **p<0.05; ***p<0.01				

The odds that a urban resident searches for a residence in an urban city rather than in a rural city is 0.923 times lower since the beginning of the pandemic (column (1)) and sharply decreases to 0.644 for the a resident in a pôle searching for a residence in the pôle also (see column 2, specification with interactions between the Covid-19 dummy variable and the category to which the municipality of origin or destination belongs). This appeal for the countryside is more pronounced since the end of the second lockdown as shown in the third column, as the coefficients associated to this period are decreasing, as shown by figure 3.

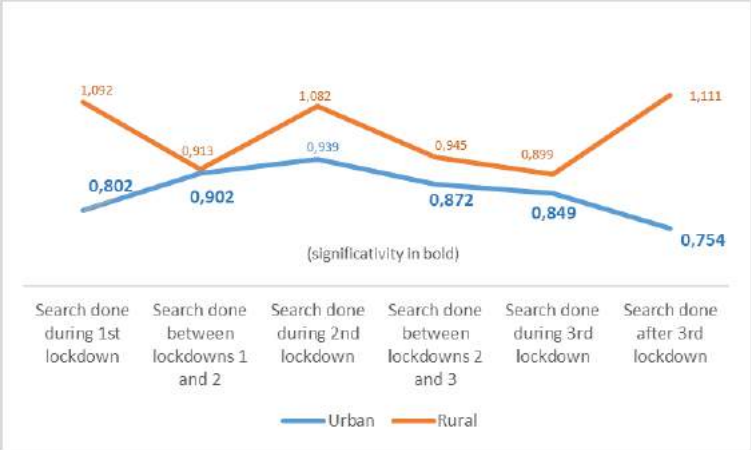

Figure 3: Probability of choosing urban over rural: Odds ratios

By contrast, the Covid-19 crisis has no impact on the probability of choosing urban over rural municipalities for rural residents as shown in columns (4) to (6). This strong result thus establishes that a change in preferences of location has been

generated by the Covid-19 crisis, but only for urban residents.

We have introduced a finer spatial decomposition for the destination in a multinomial logit estimation (Table 12 in Appendix) to determine how the category of city (center, periurban crown called "couronne" and rural zone called "hors attraction des pôles") impacts the intention to relocate. We show that the category interacting with the Covid-19 dummy is only significant for urban residents, with an odds ratio higher than 1 for periurban crown, when the center is the reference variable. Urban residents living in the center are thus more enclined to move post-Covid than those living in the periurban crown. There is no significant effect for rural residents.

Finally, we analyze the estimation results of the nested logit model. At the top level, residents choose whether to stay in the same catchment area or to move to another one. Conditionally to the choice of the catchment area, they choose to relocate to an urban municipality or a rural municipality. In other words, residents decide whether to stay close to their job and conditionally position themselves on the urban-rural gradient. The reference category is changing the catchment area to buy property in the countryside. Table 8 reports the results for the variables of interest related to Covid-19 and the category to which the municipality of origin or destination belongs, and Table 13 in appendix gives the results with all control variables selected by elastic net.

Table 8: Nested logit estimation results; Odds Ratios

	Dependent variable: *staying in the same catchment area and choosing urban over rural*			
	Urban origin		Rural origin	
Search done since March 12 2020 * Search in urban city in another catchment area	0.979		0.937	
	(0.081)		(0.068)	
Search done since March 12 2020 * Search in rural city in the same catchment area	0.887**		0.901**	
	(0.056)		(0.048)	
Search done since March 12 2020 * Search in urban city in the same catchment area	0.861*		0.813***	
	(0.079)		(0.070)	
Search done during 1st lockdown * Search in urban city in another catchment area		1.161		1.130
		(0.277)		(0.177)
Search done during 1st lockdown * Search in rural city in the same catchment area		1.035		1.042
		(0.165)		(0.132)
Search done during 1st lockdown * Search in urban city in the same catchment area		1.043		0.781

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Table 8 – continued from previous page

	Dependent variable: staying in the same catchment area and choosing urban over rural	
	Urban origin	Rural origin
	(0.267)	(0.194)
Search done between lockdowns 1 and 2 * Search in urban city in another catchment area	1.045	0.852*
	(0.127)	(0.096)
Search done between lockdowns 1 and 2 * Search in rural city in the same catchment area	0.885	0.882*
	(0.078)	(0.065)
Search done between lockdowns 1 and 2 * Search in urban city in the same catchment area	0.978	0.764***
	(0.123)	(0.098)
Search done during 2nd lockdown * Search in urban city in another catchment area	1.168	0.949
	(0.223)	(0.160)
Search done during 2nd lockdown * Search in rural city in the same catchment area	0.816	0.766**
	(0.143)	(0.113)
Search done during 2nd lockdown * Search in urban city in the same catchment area	1.050	0.830
	(0.215)	(0.163)
Search done between lockdowns 2 and 3 * Search in urban city in another catchment area	0.910	0.844
	(0.141)	(0.104)
Search done between lockdowns 2 and 3 * Search in rural city in the same catchment area	0.896	0.910
	(0.086)	(0.072)
Search done between lockdowns 2 and 3 * Search in urban city in the same catchment area	0.809	0.846
	(0.136)	(0.108)
Search done during 3rd lockdown * Search in urban city in another catchment area	0.936	0.967
	(0.216)	(0.153)
Search done during 3rd lockdown * Search in rural city in the same catchment area	1.028	0.933
	(0.132)	(0.110)
Search done during 3rd lockdown * Search in urban city in the same catchment area	0.838	0.806
	(0.208)	(0.165)
Search done after 3rd lockdown * Search in urban city in another catchment area	0.941	1.075
	(0.129)	(0.096)
Search done after 3rd lockdown * Search in rural city in the same catchment area	0.837**	0.919
	(0.079)	(0.067)
Search done after 3rd lockdown * Search in urban city in the same catchment area	0.737**	0.838*
	(0.125)	(0.101)

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Table 8 – continued from previous page

	Dependent variable: *staying in the same catchment area and choosing urban over rural*			
	Urban origin		Rural origin	
Controls	Yes	Yes	Yes	Yes
Observations	83,991	83,991	16,202	16,202
R^2	0.400	0.394	0.361	0.362
Log Likelihood	−48,395.100	−48,910.510	−14,230.910	−14,221.520
LR Test	64,631.110*** (df = 86)	63,600.290*** (df = 86)	16,093.690*** (df = 107)	16,112.470*** (df = 122)
Note:				*p<0.1; **p<0.05; ***p<0.01

Since the beginning of the crisis, the odds that an urban resident searches for a residence in the same catchment area rather than in a rural city in another catchment area is 0.887 times lower for a rural destination and even lower for an urban destination, with a coefficient equal to 0.861. In other words, since the beginning of the crisis, urban residents are more likely to change of catchment area to go to a rural area and even more likely to change of catchment area to go to rural area rather than stay in the same catchment area to buy a dwelling in an urban city. These changes are mainly driven by what happens after the third lockdown as shown by the results of the second columns. The coefficient is particularly significant and low for the joint choice of moving to an urban city in the same catchment area.
Results are less significant for rural residents, although we still show a reduction in the probability of staying in the same catchment area since the Covid-19 crisis, ever more pronounced after the end of the last lockdown.

5 Conclusion

Thanks to owner and buyer estimations on the Meilleurs Agents platform, we were able to construct desired mobility paths over the January 2019 to September 2021 period, and thus to analyze how the Covid-19 crisis has changed the location preferences in France. Our descriptive statistics show that after a time of shock during the first lockdown, the number of buyer estimates exceeded the pre-Covid level and has continued to grow afterwards which might reveal more intentions to move. The demand for houses and real estate located in secondary "pôles", "couronnes" and outside of the attraction pole has increased relatively significantly since the beginning of the pandemic while it is the reverse for centers that may appear less attractive. Our estimations of logit and nested logit models make it possible to isolate the post-Covid

effect on both the intention to change one's catchment area and to move to rural areas. We indeed observe a clear trend towards urban exodus, as the odds that an urban resident searches for a residence in an urban city rather than in a rural city is 0.644 times lower since the beginning of the pandemic for households coming from a pole and searching for a residence in a pole. Both urban and rural residents are also more inclined to leave their catchment area to relocate further away, which may have been facilitated by the development of teleworking. Finally, we show that since the beginning of the crisis, urban residents are more likely to choose to go to a rural city in a different catchment area than to go to an urban city in the same catchment area since the odds is of 0.861.

While our data constitute the most advanced indicator to provide information on migration intentions in real time, they provide no information about users and reflect an activity on the website mainly driven by the Paris area and areas of other big cities. Although we show a good representativity of our sample, it could be improved over time and across the French territory with the use of weights. This analysis could also be extended to renters and first home buyers, who are not in our sample. Next steps would also consist in carrying out an inference causal analysis of Covid-19 and better characterizing migrations using a gravity model. Finally, we could better exploit catchment area zoning in order to challenge results from Ramani and Bloom (2021) results in the case of France.

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Appendix

.1 Key dates

Sequence of lockdowns since the start of Covid-19 and associated restrictions.
"Before" from 01/01/2019 to 11/03/2020: No restrictions, except ban on gatherings from 5/03/2020

"Lockdown 1" from 12/03/2020 to 10/05/2020. On 12/03/2020, announcement of closure of nurseries, schools, colleges, high schools and universities until further notice. On 16/03/202, announcement of the first national lockdown. Closure of all non-essential public places. From 17/03/2020, ban on all travels except for professional activity, buying essential goods, health or family reasons or exercise for less than one hour. Requirement to carry identification and signed and dated declaration for any travel.

"Intermediate 1" from 11/05/2020 to 27/10/2020: Progressive lifting of most restrictions. Extension of mask-wearing rules. From 17/10/2020, overnight curfew in Paris and suburbs, Marseille, Lyon, Lille, Saint-Etienne, Rouen, Toulouse, Grenoble and Montpellier. From 24/10/2020, overnight curfews extended to 38 French departments.

"Lockdown 2" from 28/10/2020 (announcement) to 15/12/2020: Second national lockdown, which was similar to the first one in terms of restrictions, except that primary and secondary schools were open.

"Intermediate 2" from 16/12/2020 to 30/03/2021: Lifting of most restrictions. Curfew hours nationally. From 20/03/2021, daily lockdowns imposed in 16 departments.

"Lockdown 3" from 31/03/2021 (announcement) to 02/05/2021: Third national lockdown with daily lockdown rules extended to Metropolitan France.

"After" from 03/05/2021 to 20/09/2021: Lifting of most restrictions. From 21/07/2021, all people over 12 require a health pass to access some places.

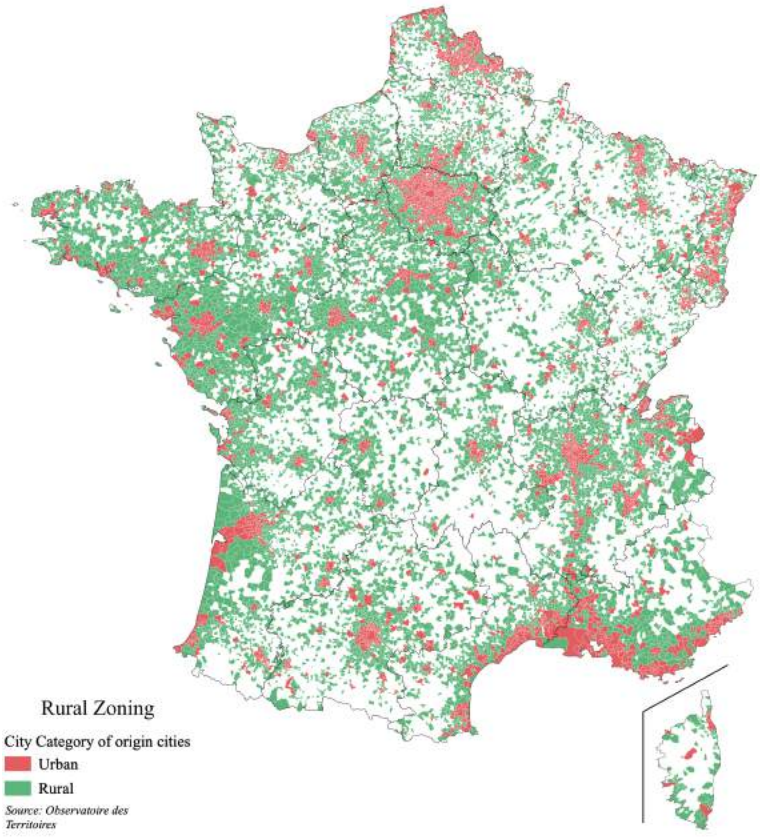

Figure 4: Owners estimates

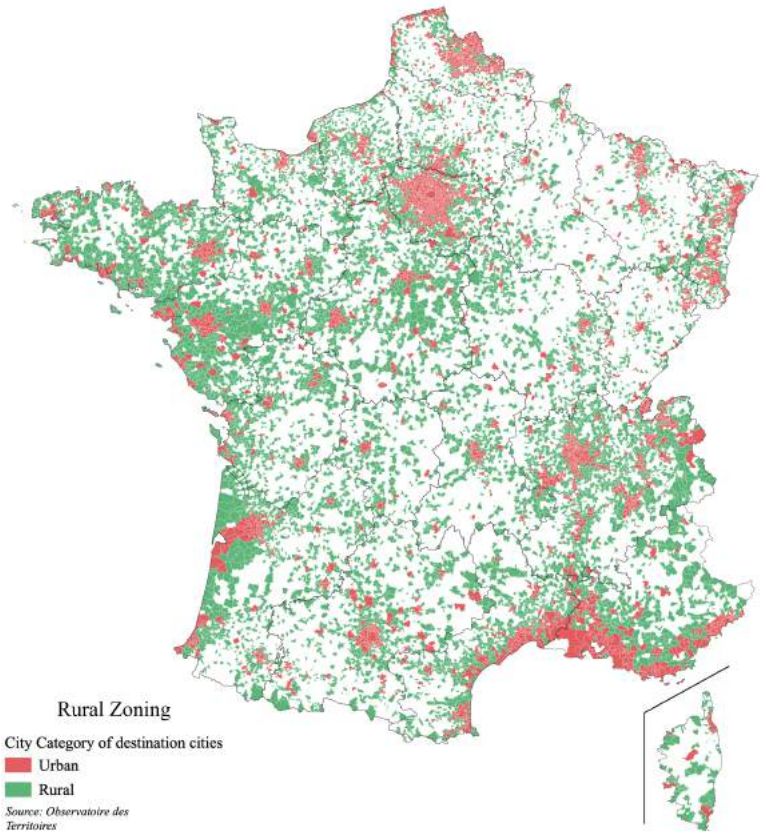

Figure 5: Buyers estimates

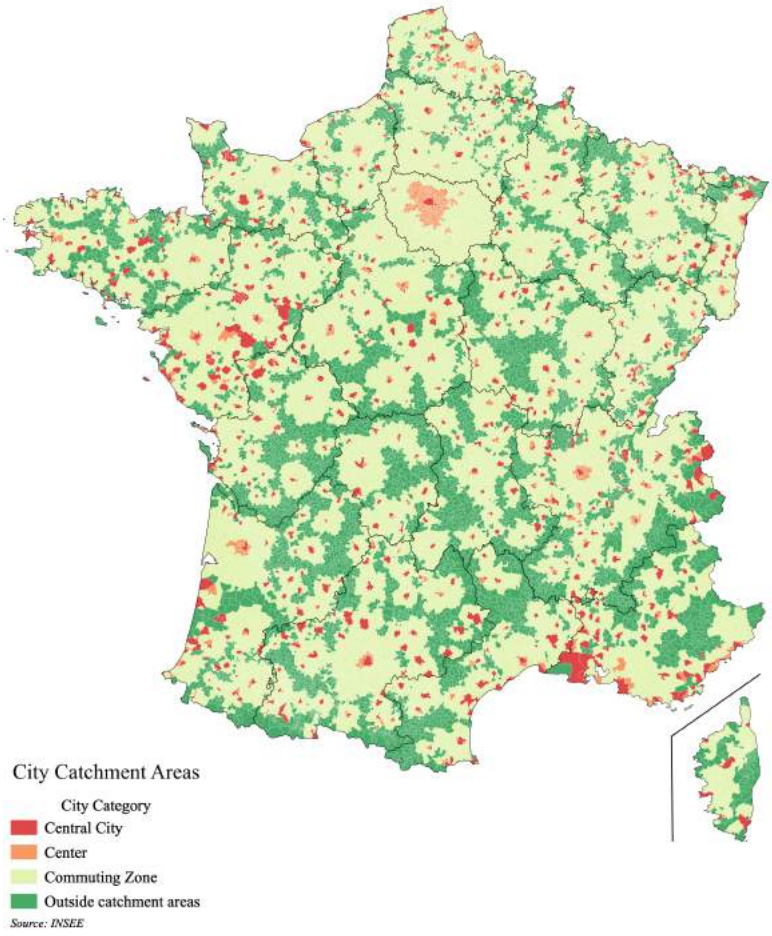

Figure 6: Composition of catchment areas

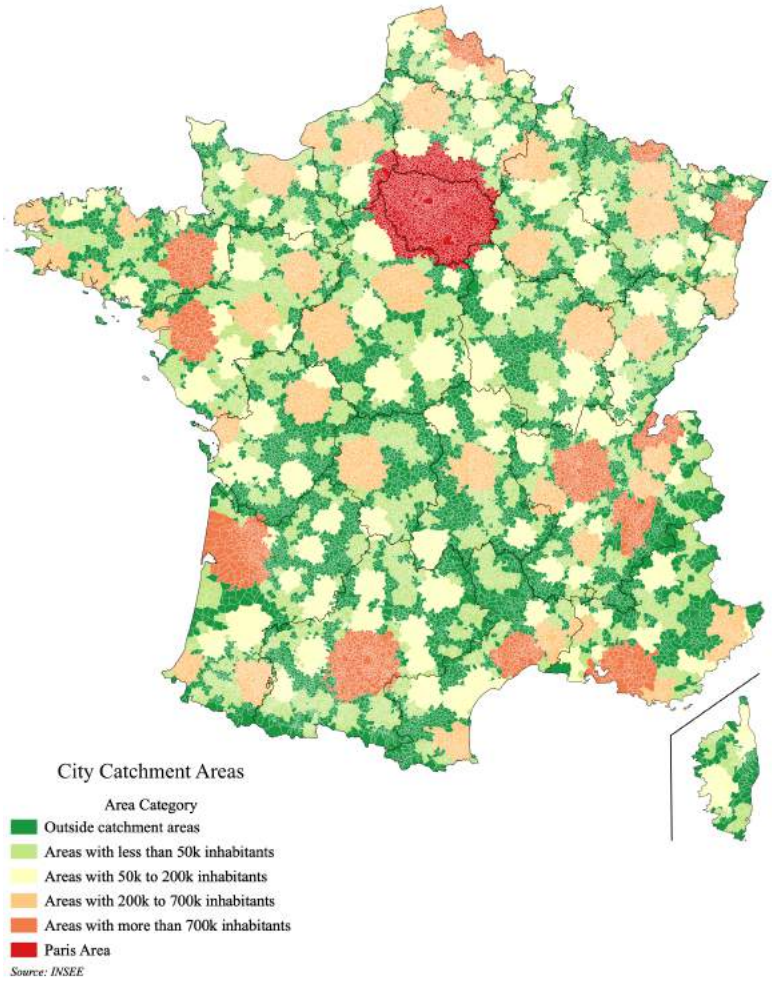

Figure 7: Catchment areas by size

Table 9: List of Variables

Variable	Unit	Observations
Search done since March 12 2020		1 if yes ; 0 if No
Search done before the first lockdown		1 if search is done between 1/1/2019 and 11/3 0 if No
Search done during first lockdown		1 if search is done between 12/3/2020 and 10/5 0 if No
Search done during the first period between two lockdowns		1 if search is done between 11/5/2020 and 27/10 0 if No
Search done during second lockdown		1 if search is done between 28/10/2020 15/12/2020; 0 if No
Search done during the second period between two lockdowns		1 if search is done between 16/12/2020 and 30/3 0 if No
Search done during third lockdown		1 if search is done between 31/3/2021 and 2/5 0 if No
Search done after the third lockdown		1 if search is done between 3/5/2021 and 20/9 0 if No
Search in the same catchment area		1 = yes ; 2 = No
Search in Urban Area		1 = yes ; 2 = No
City Category		11="commune centre"; 12="commune du 13="commune du pôle secondaire"; 20="cour 30="hors attraction des pôles"
Housing type		1 = Apartment ; 2 = House
Area of the property	Square Meters	
Number of rooms		
The property has a swimming-pool		1 if yes ; 0 if No
The property has shared walls		1 if yes ; 0 if No
The property has a terrace or a balcony		1 if yes ; 0 if No
The property has a parking		1 if yes ; 0 if No
The property has a ground garden		1 if yes ; 0 if No
Value of the property at the time of the search	Thousands Euros	
Difference of number of rooms between wanted dwelling and the property		
Share of vacant dwellings	%	
Share of second homes	%	
Share of multi-unit housing	%	
Share of dwellings built before 1946	%	
Share of owners	%	
Share of renters	%	
Share of foreigners	%	
Residential surface	Ha	
Surface dedicated to economic activities	Ha	
Number of inhabitants		
Population density (population / residential surface)	inhabitants / Ha	
Share of 65+ in the total population	%	
Share of 18-24 in the total population	%	
Share of 11-17 in the total population	%	
Share of 0-10 in the total population	%	
Unemployment rate of population aged of 15-64 years old	%	
Number of jobs per inhabitant		
Share of the not in school population aged 15 years or more with a “CAP” or a “BEP”	%	
Share of the non-schooled population aged 15 or over holding a BAC	%	

Median income of consumption units	Thousands €
Spending in amenities of the agglomeration	Euros per inhabitant
Number of amenities to find a job	
Number of educational amenities other than schools	
Number of health amenities	
Number of childcare centers	
Number of amenities for disabled persons	
Number of amenities for elderly persons	
Number of social amenities	
Number of sport, culture and leisure amenities	
Number of university higher education facilities	
Number of security equipment (police and gendarmerie)	
Number of back-to-work assistance equipment	
Distance to closest "centre d'équipement local"	km
Distance to closest "centre d'équipement intermédiaire"	km
Distance to closest "centre d'équipement structurant"	km
Distance to closest "centre d'équipement majeur"	km
Difference in the shares of foreigners between destination city and origin city	%
Difference in number of childcare amenities destination city and origin city	%

Note:
The various "Centres d'équipement" are defined by Hilal et al. (2020)

Table 10: Logit estimation results for the probability of staying in the same catchment area; Odds Ratios

	Dependent variable: staying in the same attraction area					
	Urban origin			Rural origin		
Search done since March 12 2020	0.870***	0.815***		0.892***	1.296	
	(0.019)	(0.033)		(0.035)	(0.222)	
Search done during 1st lockdown			0.924			0.917
			(0.059)			(0.098)
Search done between lockdowns 1 and 2			0.929***			0.905**
			(0.026)			(0.048)
Search done during 2nd lockdown			0.886***			0.818**
			(0.045)			(0.085)
Search done between lockdowns 2 and 3			0.883***			0.958
			(0.029)			(0.053)
Search done during 3rd lockdown			0.910**			0.876
			(0.046)			(0.083)
Search done after 3rd lockdown			0.776***			0.846***
			(0.027)			(0.049)
Origin : "commune du pôle"	1.275***	1.221***	1.257***	1.129	2.763**	1.134
	(0.044)	(0.053)	(0.043)	(0.295)	(0.434)	(0.295)
Origin : "commune du pôle secondaire"	1.195**	1.218	1.179*			
	(0.086)	(0.136)	(0.085)			
Origin : "couronne"	1.522***	1.437***	1.508***	3.545***	4.433***	3.552***

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Table 10 – continued from previous page

	Dependent variable: staying in the same attraction area					
	Urban origin			Rural origin		
	(0.047)	(0.057)	(0.046)	(0.122)	(0.178)	(0.122)
Origin : "hors attraction des pôles"	0.343**	0.200**	0.347**	1.646***	1.863***	1.649***
	(0.430)	(0.719)	(0.430)	(0.127)	(0.190)	(0.127)
Destination : "commune du pôle"	2.525***	2.495***	2.513***	1.472***	1.445***	1.478***
	(0.043)	(0.053)	(0.043)	(0.082)	(0.113)	(0.082)
Destination : "commune du pôle secondaire"	2.406***	2.416***	2.399***	2.316***	1.811**	2.317***
	(0.091)	(0.142)	(0.091)	(0.190)	(0.287)	(0.190)
Destination : "couronne"	2.295***	2.239***	2.287***	2.464***	2.480***	2.470***
	(0.044)	(0.052)	(0.043)	(0.069)	(0.087)	(0.069)
Destination : "hors attraction des pôles"	0.022***	0.021***	0.022***	2.013***	2.237***	2.019***
	(0.338)	(0.583)	(0.338)	(0.087)	(0.122)	(0.087)
Search done since March 12 2020 * Origin : "commune du pôle"		1.073			0.209***	
		(0.046)			(0.599)	
Search done since March 12 2020 * Origin : "commune du pôle secondaire"		0.970				
		(0.169)				
Search done since March 12 2020 * Origin : "couronne"		1.100*			0.679*	
		(0.053)			(0.219)	
Search done since March 12 2020 * Origin : "hors attraction des pôles"		2.416			0.798	
		(0.893)			(0.237)	
Search done since March 12 2020 * Destination : "commune du pôle"		1.022			1.027	
		(0.051)			(0.128)	
Search done since March 12 2020 * Destination : "commune du pôle secondaire"		0.995			1.522	
		(0.174)			(0.368)	
Search done since March 12 2020 * Destination : "couronne"		1.042			0.994	
		(0.047)			(0.086)	
Search done since March 12 2020 * Destination : "hors attraction des pôles"		1.120			0.853	
		(0.712)			(0.134)	
Origin : estimated value of the housing	1.000**	1.000**	1.001***	1.001***	1.001***	1.001***
	(0.0001)	(0.0001)	(0.0002)	(0.0002)	(0.0002)	(0.0002)
Origin : area	0.996***	0.996***	0.997***			
	(0.0003)	(0.0003)	(0.001)			
Origin : number of rooms				0.920***	0.920***	0.920***
				(0.011)	(0.011)	(0.011)
Origin : with swimming-pool	1.195***	1.194***	1.080	1.045	1.045	1.046
	(0.039)	(0.039)	(0.049)	(0.049)	(0.049)	(0.049)
Origin : with parking	0.880***	0.880***	0.879***	0.898***	0.898***	0.898***
	(0.019)	(0.019)	(0.035)	(0.036)	(0.036)	(0.036)
Origin : with common wall	1.159***	1.160***	1.417***	1.403***	1.402***	1.405***
	(0.025)	(0.025)	(0.043)	(0.043)	(0.043)	(0.043)
Destination : area	0.998***	0.998***	0.999			
	(0.0003)	(0.0003)	(0.001)			
Destination : ground floor (for flat)	1.193***	1.193***	0.941			
	(0.052)	(0.052)	(0.119)			
Destination : with swimming-pool	0.621***	0.621***	0.894*			

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Table 10 – continued from previous page

	Dependent variable: staying in the same attraction area					
	Urban origin			Rural origin		
	(0.037)	(0.037)	(0.062)			
Destination : with common wall	1.094***	1.095***	1.087*			
	(0.028)	(0.028)	(0.044)			
Destination : estimated value of the housing	1.000***	1.000***	1.000			
	(0.00000)	(0.00000)	(0.00000)			
Destination : with garden (for house)	1.541***	1.541***	1.121*			
	(0.034)	(0.034)	(0.062)			
Destination : with terace or balcony (for flat)	1.086***	1.086***	0.939			
	(0.027)	(0.027)	(0.065)			
Origin : equipment spending by intermunicipal groups (EPCI)	1.001***	1.001***	1.000			
	(0.0001)	(0.0001)	(0.0002)			
Origin : % of the non-schooled population aged 15 or over holding a CAP-BEP	0.999	0.999				
	(0.004)	(0.004)				
Origin : % of the non-schooled population aged 15 or over holding a BAC	1.059***	1.059***	1.014*			
	(0.007)	(0.007)	(0.007)			
Origin : unemployment rate	1.015***	1.015***	0.984***			
	(0.004)	(0.004)	(0.006)			
Destination : with parking				0.898***	0.899***	0.898***
				(0.035)	(0.035)	(0.035)
Origin : vacancy rate	1.020***	1.019***	0.986**	0.989**	0.988**	0.989**
	(0.005)	(0.005)	(0.006)	(0.006)	(0.006)	(0.006)
Origin : % of homeownership	1.048***	1.048***	0.990			
	(0.011)	(0.011)	(0.012)			
Origin : % of renters	1.045***	1.045***	0.986	0.989***	0.989***	0.989***
	(0.011)	(0.011)	(0.012)	(0.002)	(0.002)	(0.002)
Origin : % of people over 65 years	1.015***	1.015***	1.001			
	(0.003)	(0.003)	(0.004)			
Origin : % of dwellings built before 1946 in main residences				0.996**	0.996**	0.996**
				(0.002)	(0.002)	(0.002)
Origin : % of foreigners				1.026***	1.026***	1.026***
				(0.007)	(0.007)	(0.007)
Origin : % of people 18-24 years	1.011**	1.011**	1.056***	1.054***	1.054***	1.054***
	(0.005)	(0.005)	(0.013)	(0.012)	(0.012)	(0.012)
Origin : median income	0.997	0.997				
	(0.005)	(0.005)				
Origin : number of health equipment	0.996***	0.996***	1.018			
	(0.001)	(0.001)	(0.021)			
Origin : number of social action facilities for people with disabilities	1.004**	1.004**	1.044**			
	(0.002)	(0.002)	(0.019)			
Origin : number of other social action facilities	1.003	1.003				
	(0.002)	(0.002)				
Origin : number of back-to-work assistance equipment				1.617***	1.613***	1.615***
				(0.141)	(0.140)	(0.141)
Origin : urbanized area of residential type	1.000***	1.000***	1.000**	1.001***	1.001***	1.001***

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Table 10 – continued from previous page

	Dependent variable: staying in the same attraction area					
	Urban origin			Rural origin		
	(0.00001)	(0.00001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)
Origin : population density				1.017***	1.017***	1.017***
				(0.003)	(0.003)	(0.003)
Destination : equipment spending by inter-municipal groups (EPCI)	0.999***	0.999***	1.000**	1.000**	1.000**	1.000**
	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)
Destination : vacancy rate	0.932***	0.932***	0.987**			
	(0.004)	(0.004)	(0.006)			
Destination : % of second homes	0.953***	0.953***	0.981***	0.984***	0.984***	0.984***
	(0.001)	(0.001)	(0.002)	(0.001)	(0.001)	(0.001)
Destination : % of houses	0.937***	0.937***	0.997			
	(0.009)	(0.009)	(0.012)			
Destination : % of collective housing	0.963***	0.963***	1.002			
	(0.009)	(0.009)	(0.012)			
Destination : % of renters	0.956***	0.956***	0.991***	0.995**	0.995**	0.995**
	(0.002)	(0.002)	(0.003)	(0.002)	(0.002)	(0.002)
Destination : % of foreigners	1.048***	1.048***	1.036***			
	(0.004)	(0.004)	(0.008)			
Destination : % of people 11-17 years	1.140***	1.140***	1.008			
	(0.011)	(0.011)	(0.014)			
Destination : % of people 18-24 years	1.067***	1.067***	1.062***	1.045***	1.044***	1.044***
	(0.005)	(0.005)	(0.010)	(0.008)	(0.008)	(0.008)
Destination : number of non-university higher education facilities				0.982***	0.982***	0.982***
				(0.005)	(0.005)	(0.005)
Destination : number of university higher education facilities	0.987***	0.987***	0.998	1.014***	1.014***	1.014***
	(0.002)	(0.002)	(0.005)	(0.005)	(0.005)	(0.005)
Destination : number of social action facilities for the elderly	0.995***	0.995***	0.995			
	(0.001)	(0.001)	(0.004)			
Destination : number of social action facilities for people with disabilities	0.984***	0.984***	0.996			
	(0.002)	(0.002)	(0.005)			
Destination : number of security equipment (police and gendarmerie)	1.044***	1.044***	1.009			
	(0.006)	(0.006)	(0.015)			
Destination : number of other social action facilities				1.017***	1.017***	1.017***
				(0.005)	(0.005)	(0.005)
Destination : urbanized area of residential type	1.000***	1.000***	1.000***	1.000***	1.000***	1.000***
	(0.00003)	(0.00003)	(0.0001)	(0.0001)	(0.0001)	(0.0001)
Destination : urbanised area	1.000***	1.000***	1.001***	1.001***	1.001***	1.001***
	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)
Destination : population density	1.002***	1.002***	0.995***	0.996***	0.996***	0.996***
	(0.0003)	(0.0003)	(0.001)	(0.001)	(0.001)	(0.001)
Destination : number of 1st degree teaching equipment	1.005***	1.005***	1.003**			
	(0.001)	(0.001)	(0.002)			
Difference in the % of foreigners	1.014***	1.014***	0.972***			
	(0.003)	(0.003)	(0.007)			

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Table 10 – continued from previous page

	Dependent variable: staying in the same attraction area					
	Urban origin			Rural origin		
Destination : distance to closest "centre d'équipement intermédiaire"	1.026***	1.026***	0.982***	0.986***	0.986***	0.986***
	(0.004)	(0.004)	(0.005)	(0.005)	(0.005)	(0.005)
Destination : distance to closest "centre d'équipement structurant"	1.019***	1.019***	0.996*			
	(0.002)	(0.002)	(0.002)			
Destination : distance to closest "centre d'équipement majeur"	0.988***	0.988***	0.991***	0.993***	0.993***	0.993***
	(0.001)	(0.001)	(0.002)	(0.002)	(0.002)	(0.002)
Destination : distance to closest "centre d'équipement intermédiaire"	0.968***	0.968***	1.003			
	(0.004)	(0.004)	(0.005)			
Destination : distance to closest "centre d'équipement local"				0.984***	0.984***	0.984***
				(0.006)	(0.006)	(0.006)
Destination : distance to closest "centre d'équipement structurant"	0.980***	0.980***	1.020***	1.017***	1.017***	1.017***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Destination : distance to closest "centre d'équipement majeur"	0.990***	0.990***	1.001			
	(0.001)	(0.001)	(0.002)			
Constant	1.106	1.167	0.728	0.225***	0.182***	0.224***
	(1.470)	(1.470)	(1.748)	(0.206)	(0.245)	(0.207)
Observations	83,991	83,991	83,991	16,202	16,202	16,202
Log Likelihood	−37,496	−37,492	−10,105	−10,091	−10,085	−10,088
Akaike Inf. Crit.	75,113	75,121	20,332	20,256	20,258	20,260
Note:						*p<0.1; **p<0.05; ***p<0.01

Table 11: Logit estimation results for the probability of choosing urban over rural; Odds Ratios

	Dependent variable: choose urban over rural					
	Urban origin			Rural origin		
Search done since March 12 2020	0.923*	0.644***		0.991	1.016	
	(0.045)	(0.167)		(0.071)	(0.412)	
Search done during 1st lockdown			0.802**			1.092
			(0.094)			(0.196)
Search done between lockdowns 1 and 2			0.902**			0.913
			(0.042)			(0.101)
Search done during 2nd lockdown			0.939			1.082
			(0.076)			(0.171)
Search done between lockdowns 2 and 3			0.872***			0.945
			(0.047)			(0.108)
Search done during 3rd lockdown			0.849**			0.899
			(0.074)			(0.160)
Search done after 3rd lockdown			0.754***			1.111
			(0.044)			(0.102)

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Table 11 – continued from previous page

	Dependent variable: choose urban over rural					
	Urban origin			Rural origin		
Origin : "commune du pôle"	1.128	0.965	1.246***	0.186***	0.241*	0.187***
	(0.077)	(0.107)	(0.055)	(0.560)	(0.773)	(0.560)
Origin : "commune du pôle secondaire"	1.425*	1.426	1.347**			
	(0.186)	(0.301)	(0.134)			
Origin : "couronne"	1.366***	1.331***	1.949***	0.962	1.361	0.962
	(0.085)	(0.109)	(0.059)	(0.225)	(0.333)	(0.225)
Origin : "hors attraction des pôles"	3.056**	25.277***	3.187**	0.837	0.971	0.834
	(0.565)	(1.065)	(0.579)	(0.244)	(0.368)	(0.245)
Destination : "commune du pôle"	10.069***	8.163***	3.822***	13.705***	7.431***	13.529***
	(0.181)	(0.306)	(0.148)	(0.281)	(0.417)	(0.282)
Destination : "couronne"	0.378***	0.311***	0.023***	0.493***	0.348***	0.490***
	(0.100)	(0.149)	(0.063)	(0.159)	(0.220)	(0.160)
Destination : "hors attraction des pôles"	0.033***	0.023***	0.0001***	0.047***	0.039***	0.047***
	(0.203)	(0.364)	(0.202)	(0.380)	(0.573)	(0.381)
Search done since March 12 2020 * Origin : "commune du pôle"		1.282**			0.819	
		(0.116)			(1.122)	
Search done since March 12 2020:Origin : "commune du pôle secondaire"		1.011				
		(0.376)				
Search done since March 12 2020:Origin : "couronne"		1.047			0.560	
		(0.110)			(0.411)	
Search done since March 12 2020:Origin : "hors attraction des pôles"		0.044**			0.773	
		(1.265)			(0.458)	
Search done since March 12 2020:Destination : "commune du pôle"		1.383			2.786*	
		(0.368)			(0.542)	
Search done since March 12 2020:Destination : "commune du pôle secondaire"		0.962			0.0001	
		(6,676.818)			(243.726)	
Search done since March 12 2020:Destination : "couronne"		1.339*			1.735**	
		(0.165)			(0.242)	
Search done since March 12 2020:Destination : "hors attraction des pôles"		1.583			1.375	
		(0.431)			(0.745)	
Origin : estimated value of the housing	1.000	1.000	1.000*	1.000	1.000	1.000
	(0.0001)	(0.0001)	(0.0002)	(0.0003)	(0.0003)	(0.0003)
Destination : area	0.993***	0.993***	0.985***			
	(0.001)	(0.001)	(0.001)			
Destination : with swimming-pool	0.705***	0.706***	0.811***			
	(0.065)	(0.065)	(0.080)			
Destination : estimated value of the housing	1.000***	1.000***	1.000***	1.000***	1.000***	1.000***
	(0.00000)	(0.00000)	(0.00000)	(0.00000)	(0.00000)	(0.00000)
Origin : number of jobs per resident	0.811*	0.816*	1.002			
	(0.107)	(0.107)	(0.027)			
Origin : vacancy rate	1.037***	1.037***	1.011			
	(0.011)	(0.011)	(0.009)			
Origin : % of second homes	1.013***	1.013***	0.993***			
	(0.003)	(0.003)	(0.002)			

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Table 11 – continued from previous page

	Dependent variable: choose urban over rural					
	Urban origin			Rural origin		
Origin : % of homeownership	1.007***	1.007***	1.001			
	(0.002)	(0.002)	(0.003)			
Origin : municipal population				1.000***	1.000***	1.000***
				(0.00005)	(0.00005)	(0.00005)
Origin : % of dwellings built before 1946 in main residences	1.014***	1.014***	0.996	1.010***	1.010***	1.010***
	(0.003)	(0.003)	(0.002)	(0.003)	(0.003)	(0.003)
Origin : % of people over 65 years	0.985***	0.985***	0.992			
	(0.006)	(0.006)	(0.005)			
Origin : number of social action facilities for the elderly	1.008***	1.008***	0.949*			
	(0.002)	(0.002)	(0.028)			
Origin : number of other social action facilities				0.627***	0.620***	0.625***
				(0.147)	(0.147)	(0.147)
Origin : number of back-to-work assistance equipment	1.038***	1.038***	0.908	0.533**	0.538**	0.538**
	(0.014)	(0.014)	(0.182)	(0.265)	(0.267)	(0.266)
Origin : urbanized area of residential type				1.001**	1.001**	1.001**
				(0.001)	(0.001)	(0.001)
Origin : population density				0.989	0.988	0.989
				(0.007)	(0.007)	(0.007)
Destination : municipal population	1.001***	1.001***		1.001***	1.001***	1.001***
	(0.00003)	(0.00003)		(0.00005)	(0.00005)	(0.00005)
Destination : equipment spending by intermunicipal groups (EPCI)	1.000**	1.000**	1.003***			
	(0.0002)	(0.0002)	(0.0002)			
Destination : vacancy rate	0.908***	0.908***	0.981**	0.910***	0.909***	0.909***
	(0.010)	(0.010)	(0.008)	(0.016)	(0.016)	(0.016)
Destination : % of second homes	0.960***	0.960***		0.982***	0.982***	0.982***
	(0.002)	(0.002)		(0.004)	(0.004)	(0.004)
Destination : % of houses				1.067**	1.066**	1.068**
				(0.027)	(0.027)	(0.028)
Destination : % of collective housing	1.030***	1.030***		1.093***	1.091***	1.094***
	(0.002)	(0.002)		(0.027)	(0.027)	(0.027)
Destination : % of homeownership	1.038***	1.038***				
	(0.004)	(0.004)				
Destination : % of dwellings built before 1946 in main residences	0.983***	0.983***		0.965***	0.965***	0.965***
	(0.003)	(0.003)		(0.005)	(0.005)	(0.005)
Destination : % of foreigners	1.072***	1.072***				
	(0.008)	(0.008)				
Destination : % of people over 65 years	1.057***	1.057***	1.000	1.074***	1.073***	1.074***
	(0.007)	(0.007)	(0.004)	(0.012)	(0.012)	(0.012)
Destination : % of people below 10 years	0.849***	0.849***		0.908***	0.906***	0.908***
	(0.017)	(0.017)		(0.026)	(0.026)	(0.026)
Destination : % of people 18-24 years	1.053***	1.052***		1.064**	1.061**	1.062**
	(0.017)	(0.017)		(0.025)	(0.025)	(0.025)
Origin : number of health equipment				1.013	1.015	1.013
				(0.028)	(0.028)	(0.028)
Destination : number of social action facilities for the elderly	0.854***	0.855***		0.859***	0.858***	0.857***
	(0.022)	(0.022)		(0.033)	(0.033)	(0.033)

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Table 11 – continued from previous page

	Dependent variable: choose urban over rural					
	Urban origin			Rural origin		
Destination : number of security equipment (police and gendarmerie)	0.584***	0.583***		0.605***	0.606***	0.608***
	(0.065)	(0.065)		(0.107)	(0.108)	(0.107)
Destination : back-to-work assistance				1.551***	1.565***	1.553***
				(0.149)	(0.150)	(0.149)
Destination : urbanized area of residential type	0.995***	0.995***		0.995***	0.995***	0.995***
	(0.0003)	(0.0003)		(0.001)	(0.001)	(0.001)
Destination : urbanised area	0.996***	0.996***				
	(0.001)	(0.001)				
Destination : population density	1.053***	1.052***		1.058***	1.058***	1.058***
	(0.004)	(0.004)		(0.007)	(0.007)	(0.007)
Origin : number of sports, leisure and cultural facilities	0.995***	0.995***	0.987**			
	(0.001)	(0.001)	(0.005)			
Destination : distance to closest "centre d'équipement local"			0.986*			
			(0.008)			
Destination : number of sports, leisure and cultural facilities				0.919***	0.918***	0.919***
				(0.008)	(0.008)	(0.008)
Destination : distance to closest "centre d'équipement structurant"				1.022***	1.022***	1.021***
				(0.005)	(0.005)	(0.005)
Destination : distance to closest "centre d'équipement majeur"				1.009**	1.009**	1.008**
				(0.004)	(0.004)	(0.004)
Destination : distance to closest "centre d'équipement local"	0.838***	0.838***	0.980***	0.853***	0.853***	0.853***
	(0.007)	(0.007)	(0.008)	(0.013)	(0.013)	(0.013)
Destination : distance to closest "centre d'équipement intermédiaire"	0.935***	0.935***	0.906***			
	(0.007)	(0.007)	(0.006)			
Destination : distance to closest "centre d'équipement structurant"				0.945***	0.945***	0.945***
				(0.005)	(0.005)	(0.005)
Destination : distance to closest "centre d'équipement majeur"				0.980***	0.980***	0.980***
				(0.004)	(0.004)	(0.004)
Constant	0.036***	0.046***	11.608***	0.0004***	0.0005***	0.0004***
	(0.601)	(0.613)	(0.342)	(2.831)	(2.838)	(2.848)
Observations	83,991	83,991	83,991	16,202	16,202	16,202
Log Likelihood	−6,956	−6,949	−5,851	−2,735	−2,730	−2,733
Akaike Inf. Crit.	13,994	13,996	11,769	5,546	5,551	5,552
Note:			*p<0.1; **p<0.05; ***p<0.01			

Table 12: Multinomial logit estimation results; Odds Ratios

	Dependent variable: Choosing between city center, periurban crown and rural zone	
	Urban origin	Rural origin
Search done since March 12 2020 * "couronne"	1.082***	0.938
	(0.027)	(0.057)
Search done since March 12 2020 * "hors attraction des pôles"	1.061	1.016
	(0.062)	(0.081)
Origin : estimated value of the housing * "couronne"	1.000	1.001***
	(0.0001)	(0.0002)
Origin : estimated value of the housing * "hors attraction des pôles"	1.000	1.001**
	(0.0001)	(0.0003)
Origin : with common wall * "couronne"	1.045	
	(0.034)	
Origin : with common wall * "hors attraction des pôles"	0.960	
	(0.075)	
Destination : with swimming-pool * "couronne"	1.863***	1.358***
	(0.048)	(0.101)
Destination : with swimming-pool * "hors attraction des pôles"	1.429***	1.176
	(0.096)	(0.137)
Destination : with terace or balcony (for flat) * "couronne"	0.826***	
	(0.033)	
Destination : with terace or balcony (for flat) * "hors attraction des pôles"	0.709***	
	(0.098)	
Origin : unemployment rate * "couronne"	0.995	
	(0.005)	
Origin : unemployment rate * "hors attraction des pôles"	0.977**	
	(0.011)	
Origin : % of second homes * "couronne"	1.006***	
	(0.002)	
Origin : % of second homes * "hors attraction des pôles"	1.011***	
	(0.004)	
Origin : % of people over 65 years * "couronne"	1.006	
	(0.004)	
Origin : % of people over 65 years * "hors attraction des pôles"	0.992	
	(0.008)	
Origin : % of people 18-24 years * "couronne"	0.998	
	(0.005)	
Origin : % of people 18-24 years * "hors attraction des pôles"	0.999	
	(0.011)	
Origin : median income * "couronne"	0.964***	
	(0.005)	
Origin : median income * "hors attraction des pôles"	0.942***	
	(0.011)	
Origin : population density * "couronne"	0.998***	
	(0.0002)	
Origin : population density * "hors attraction des pôles"	0.998***	

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Table 12 – continued from previous page

	Dependent variable: Choosing between city center, periurban crown and rural zone	
	Urban origin	Rural origin
	(0.0004)	
Destination : equipment spending by intermunicipal groups (EPCI) * "couronne"	1.001***	
	(0.0001)	
Destination : equipment spending by intermunicipal groups (EPCI) * "hors attraction des pôles"	1.001***	
	(0.0002)	
Destination : vacancy rate * "couronne"	0.984***	
	(0.005)	
Destination : vacancy rate * "hors attraction des pôles"	0.949***	
	(0.009)	
Destination : % of homeownership * "couronne"	0.839***	
	(0.012)	
Destination : % of homeownership * "hors attraction des pôles"	0.707***	
	(0.018)	
Destination : % of renters * "couronne"	0.765***	
	(0.013)	
Destination : % of renters * "hors attraction des pôles"	0.634***	
	(0.018)	
Destination : % of dwellings built before 1946 in main residences * "couronne"	1.007***	
	(0.002)	
Destination : % of dwellings built before 1946 in main residences * "hors attraction des pôles"	1.049***	
	(0.003)	
Destination : % of foreigners * "couronne"	0.856***	
	(0.004)	
Destination : % of foreigners * "hors attraction des pôles"	0.834***	
	(0.010)	
Destination : % of second homes * "couronne"		1.049***
		(0.002)
Destination : % of second homes * "hors attraction des pôles"		1.073***
		(0.003)
Destination : % of houses * "couronne"		1.083***
		(0.001)
Destination : % of houses * "hors attraction des pôles"		1.097***
		(0.002)
Destination : % of people over 65 years * "couronne"	0.939***	0.911***
	(0.002)	(0.008)
Destination : % of people over 65 years * "hors attraction des pôles"	1.025***	0.979**
	(0.004)	(0.010)
Destination : distance to closest "centre d'équipement local" * "couronne"	1.023***	
	(0.005)	
Destination : distance to closest "centre d'équipement local" * "hors attraction des pôles"	1.026**	
	(0.010)	
Destination : % of people below 10 years * "couronne"		1.068***

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Table 12 – continued from previous page

	Dependent variable: Choosing between city center, periurban crown and rural zone	
	Urban origin	Rural origin
		(0.019)
Destination : % of people below 10 years * "hors attraction des pôles"		1.097***
		(0.025)
Destination : distance to closest "centre d'équipement intermédiaire" * "couronne"	0.977***	0.984**
	(0.006)	(0.007)
Destination : distance to closest "centre d'équipement intermédiaire" * "hors attraction des pôles"	0.987	0.977**
	(0.011)	(0.009)
Destination : distance to closest "centre d'équipement structurant" * "couronne"	1.008***	0.988***
	(0.002)	(0.004)
Destination : distance to closest "centre d'équipement structurant" * "hors attraction des pôles"	0.983***	0.975***
	(0.004)	(0.005)
Destination : distance to closest "centre d'équipement majeur" * "couronne"	1.005***	0.992***
	(0.002)	(0.003)
Destination : distance to closest "centre d'équipement majeur" * "hors attraction des pôles"	0.994*	0.990***
	(0.003)	(0.004)
Destination : distance to closest "centre d'équipement local" * "couronne"	0.867***	0.841***
	(0.004)	(0.009)
Destination : distance to closest "centre d'équipement local" * "hors attraction des pôles"	0.801***	0.828***
	(0.009)	(0.012)
Destination : distance to closest "centre d'équipement intermédiaire" * "couronne"	0.955***	
	(0.004)	
Destination : distance to closest "centre d'équipement intermédiaire" * "hors attraction des pôles"	0.937***	
	(0.007)	
Destination : distance to closest "centre d'équipement structurant" * "couronne"	1.038***	1.011***
	(0.002)	(0.003)
Destination : distance to closest "centre d'équipement structurant" * "hors attraction des pôles"	1.128***	1.085***
	(0.003)	(0.005)
Destination : distance to closest "centre d'équipement majeur" * "couronne"	1.075***	1.016***
	(0.001)	(0.002)
Destination : distance to closest "centre d'équipement majeur" * "hors attraction des pôles"	1.150***	1.082***
	(0.003)	(0.003)
Observations	83,991	16,202
R^2	0.585	0.491
Log Likelihood	−23,862	−7,714
LR Test	67,168*** (df = 54)	14,869*** (df = 28)

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Table 12 – continued from previous page

	Dependent variable: Choosing between city center, periurban crown and rural zone	
	Urban origin	Rural origin
Note:		*p<0.1; **p<0.05; ***p<0.01

Table 13: Nested logit estimation results; Odds Ratios

	Dependent variable: staying in the same attraction area and choosing urban over rural			
	Urban origin		Rural origin	
Intercept * Search in urban city in another catchment area	0.000***	0.00000***	15.146***	15.057***
	(1.236)	(1.144)	(0.867)	(0.866)
Intercept * Search in rural city in the same catchment area	0.001***	0.004***	2.093	2.076
	(0.610)	(0.570)	(0.569)	(0.569)
Intercept * Search in urban city in the same catchment area	0.000***	0.00000***	1.894	1.889
	(1.202)	(1.112)	(0.892)	(0.893)
Search done since March 12 2020 * Search in urban city in another catchment area	0.979		0.937	
	(0.081)		(0.068)	
Search done since March 12 2020 * Search in rural city in the same catchment area	0.887**		0.901**	
	(0.056)		(0.048)	
Search done since March 12 2020 * Search in urban city in the same catchment area	0.861*		0.813***	
	(0.079)		(0.070)	
Search done during 1st lockdown * Search in urban city in another catchment area		1.161		1.130
		(0.277)		(0.177)
Search done during 1st lockdown * Search in rural city in the same catchment area		1.035		1.042
		(0.165)		(0.132)
Search done during 1st lockdown * Search in urban city in the same catchment area		1.043		0.781
		(0.267)		(0.194)
Search done between lockdowns 1 and 2 * Search in urban city in another catchment area		1.045		0.852*
		(0.127)		(0.096)
Search done between lockdowns 1 and 2 * Search in rural city in the same catchment area		0.885		0.882*
		(0.078)		(0.065)
Search done between lockdowns 1 and 2 * Search in urban city in the same catchment area		0.978		0.764***
		(0.123)		(0.098)

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Table 13 – continued from previous page

	Dependent variable: staying in the same attraction area and choosing urban over rural			
	Urban origin		Rural origin	
Search done during 2nd lockdown * Search in urban city in another catchment area		1.168		0.949
		(0.223)		(0.160)
Search done during 2nd lockdown * Search in rural city in the same catchment area		0.816		0.766**
		(0.143)		(0.113)
Search done during 2nd lockdown * Search in urban city in the same catchment area		1.050		0.830
		(0.215)		(0.163)
Search done between lockdowns 2 and 3 * Search in urban city in another catchment area		0.910		0.844
		(0.141)		(0.104)
Search done between lockdowns 2 and 3 * Search in rural city in the same catchment area		0.896		0.910
		(0.086)		(0.072)
Search done between lockdowns 2 and 3 * Search in urban city in the same catchment area		0.809		0.846
		(0.136)		(0.108)
Search done during 3rd lockdown * Search in urban city in another catchment area		0.936		0.967
		(0.216)		(0.153)
Search done during 3rd lockdown * Search in rural city in the same catchment area		1.028		0.933
		(0.132)		(0.110)
Search done during 3rd lockdown * Search in urban city in the same catchment area		0.838		0.806
		(0.208)		(0.165)
Search done after 3rd lockdown * Search in urban city in another catchment area		0.941		1.075
		(0.129)		(0.096)
Search done after 3rd lockdown * Search in rural city in the same catchment area		0.837**		0.919
		(0.079)		(0.067)
Search done after 3rd lockdown * Search in urban city in the same catchment area		0.737**		0.838*
		(0.125)		(0.101)
Origin : estimated value of the housing * Search in urban city in another catchment area	1.000	1.001***	1.001**	1.001**
	(0.0002)	(0.0002)	(0.0003)	(0.0003)
Origin : estimated value of the housing * Search in rural city in the same catchment area	0.999***	0.999***	1.001***	1.001***
	(0.0002)	(0.0002)	(0.0002)	(0.0002)
Origin : estimated value of the housing * Search in urban city in the same catchment area	1.000	1.001***	1.003***	1.003***
	(0.0002)	(0.0002)	(0.0003)	(0.0003)

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Table 13 – continued from previous page

	Dependent variable: staying in the same attraction area and choosing urban over rural			
	Urban origin		Rural origin	
Destination : with swimming-pool * Search in urban city in another catchment area	1.257*	1.283*		
	(0.121)	(0.140)		
Destination : with swimming-pool * Search in rural city in the same catchment area	0.969	0.986		
	(0.078)	(0.080)		
Destination : with swimming-pool * Search in urban city in the same catchment area	0.772**	0.785*		
	(0.112)	(0.130)		
Destination : area * Search in urban city in another catchment area	0.995***	0.994***		
	(0.001)	(0.001)		
Destination : area * Search in rural city in the same catchment area	1.000	1.000		
	(0.001)	(0.001)		
Destination : area * Search in urban city in the same catchment area	0.996***	0.995***		
	(0.001)	(0.001)		
Origin : number of jobs per resident * Search in urban city in another catchment area	0.795	0.353***		
	(0.191)	(0.208)		
Origin : number of jobs per resident * Search in rural city in the same catchment area	1.503***	1.232		
	(0.131)	(0.127)		
Origin : number of jobs per resident * Search in urban city in the same catchment area	0.632**	0.269***		
	(0.183)	(0.201)		
Origin : house * Search in urban city in another catchment area			0.822	0.826
			(0.165)	(0.165)
Origin : house * Search in rural city in the same catchment area			0.672***	0.676***
			(0.119)	(0.119)
Origin : house * Search in urban city in the same catchment area			0.497***	0.498***
			(0.164)	(0.164)
Origin : area * Search in urban city in another catchment area			1.001	1.001
			(0.001)	(0.001)
Origin : area * Search in rural city in the same catchment area			1.000	1.000
			(0.001)	(0.001)
Origin : area * Search in urban city in the same catchment area			0.996***	0.996***
			(0.001)	(0.001)

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Table 13 – continued from previous page

	Dependent variable: staying in the same attraction area and choosing urban over rural			
	Urban origin		Rural origin	
Origin : number of rooms * Search in urban city in another catchment area			0.957	0.957*
			(0.027)	(0.027)
Origin : number of rooms * Search in rural city in the same catchment area			0.940***	0.940***
			(0.018)	(0.018)
Origin : number of rooms * Search in urban city in the same catchment area			0.905***	0.905***
			(0.028)	(0.028)
Origin : with swimming-pool * Search in urban city in another catchment area			1.076	1.073
			(0.095)	(0.095)
Origin : with swimming-pool * Search in rural city in the same catchment area			1.112	1.111
			(0.069)	(0.069)
Origin : with swimming-pool * Search in urban city in the same catchment area			1.143	1.148
			(0.099)	(0.099)
Origin : with parking * Search in urban city in another catchment area			1.060	1.061
			(0.069)	(0.069)
Origin : with parking * Search in rural city in the same catchment area			0.856***	0.855***
			(0.047)	(0.047)
Origin : with parking * Search in urban city in the same catchment area			0.961	0.962
			(0.071)	(0.071)
Origin : with common wall * Search in urban city in another catchment area			0.992	0.991
			(0.088)	(0.088)
Origin : with common wall * Search in rural city in the same catchment area			1.507***	1.506***
			(0.058)	(0.058)
Origin : with common wall * Search in urban city in the same catchment area			1.448***	1.449***
			(0.089)	(0.090)
Destination : house * Search in urban city in another catchment area			0.466***	0.466***
			(0.121)	(0.121)
Destination : house * Search in rural city in the same catchment area			0.973	0.972
			(0.092)	(0.092)
Destination : house * Search in urban city in the same catchment area			0.576***	0.575***
			(0.123)	(0.123)
Origin : vacancy rate * Search in urban city in another catchment area	1.142***	1.119***	1.077***	1.078***
	(0.019)	(0.021)	(0.014)	(0.014)
Origin : vacancy rate * Search in rural city in the same catchment area	1.048***	1.026**	0.993	0.993
	(0.012)	(0.012)	(0.008)	(0.008)

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Table 13 – continued from previous page

	Dependent variable: staying in the same attraction area and choosing urban over rural			
	Urban origin		Rural origin	
Origin : vacancy rate * Search in urban city in the same catchment area	1.145***	1.132***	1.038**	1.038**
	(0.019)	(0.020)	(0.015)	(0.015)
Origin : % of second homes * Search in urban city in another catchment area	1.048***	1.056***	1.023***	1.023***
	(0.006)	(0.007)	(0.004)	(0.004)
Origin : % of second homes * Search in rural city in the same catchment area	0.994	0.990**	1.008***	1.008***
	(0.004)	(0.004)	(0.002)	(0.002)
Origin : % of second homes * Search in urban city in the same catchment area	1.043***	1.053***	0.998	0.998
	(0.006)	(0.006)	(0.004)	(0.004)
Origin : % of homeownership * Search in urban city in another catchment area	1.036***		0.999	0.999
	(0.005)		(0.005)	(0.005)
Origin : % of homeownership * Search in rural city in the same catchment area	1.014***		1.001	1.001
	(0.003)		(0.003)	(0.003)
Origin : % of homeownership * Search in urban city in the same catchment area	1.035***		1.031***	1.031***
	(0.004)		(0.005)	(0.005)
Origin : % of dwellings built before 1946 in main residences * Search in urban city in another catchment area	1.018***	1.013***	0.997	0.997
	(0.004)	(0.005)	(0.003)	(0.003)
Origin : % of dwellings built before 1946 in main residences * Search in rural city in the same catchment area	0.979***	0.978***	0.996*	0.996*
	(0.003)	(0.003)	(0.002)	(0.002)
Origin : % of dwellings built before 1946 in main residences * Search in urban city in the same catchment area	1.009**	1.004	0.993**	0.993**
	(0.004)	(0.005)	(0.004)	(0.004)
Origin : % of people below 10 years * Search in urban city in another catchment area			0.982	0.983
			(0.020)	(0.020)
Origin : % of people below 10 years * Search in rural city in the same catchment area			0.988	0.988
			(0.014)	(0.014)
Origin : % of people below 10 years * Search in urban city in the same catchment area			0.952**	0.952**
			(0.021)	(0.021)
Origin : % of people 18-24 years * Search in urban city in another catchment area	0.943***	0.827***	0.951*	0.951*
	(0.015)	(0.017)	(0.027)	(0.027)
Origin : % of people 18-24 years * Search in rural city in the same catchment area	1.052***	1.020**	1.014	1.015
	(0.010)	(0.009)	(0.018)	(0.018)

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Table 13 – continued from previous page

	Dependent variable: staying in the same attraction area and choosing urban over rural			
	Urban origin		Rural origin	
Origin : % of people 18-24 years * Search in urban city in the same catchment area	1.006	0.883***	0.993	0.993
	(0.015)	(0.017)	(0.027)	(0.027)
Origin : % of people over 65 years * Search in urban city in another catchment area	0.945***	0.932***	0.977**	0.977**
	(0.011)	(0.012)	(0.011)	(0.011)
Origin : % of people over 65 years * Search in rural city in the same catchment area	1.047***	1.052***	1.002	1.002
	(0.007)	(0.007)	(0.007)	(0.007)
Origin : % of people over 65 years * Search in urban city in the same catchment area	0.981*	0.961***	0.939***	0.939***
	(0.010)	(0.011)	(0.012)	(0.012)
Origin : median income * Search in urban city in another catchment area	1.039***			
	(0.012)			
Origin : median income * Search in rural city in the same catchment area	1.004			
	(0.009)			
Origin : median income * Search in urban city in the same catchment area	1.038***			
	(0.012)			
Origin : urbanized area of residential type * Search in urban city in another catchment area			0.998***	0.998***
			(0.0003)	(0.0003)
Origin : urbanized area of residential type * Search in rural city in the same catchment area			1.000**	1.000**
			(0.0002)	(0.0002)
Origin : urbanized area of residential type * Search in urban city in the same catchment area			0.999***	0.999***
			(0.0003)	(0.0003)
Origin : population density * Search in urban city in another catchment area			1.009	1.009
			(0.006)	(0.006)
Origin : population density * Search in rural city in the same catchment area			1.017***	1.017***
			(0.004)	(0.004)
Origin : population density * Search in urban city in the same catchment area			1.034***	1.034***
			(0.006)	(0.006)
Destination : equipment spending by intermunicipal groups (EPCI) * Search in urban city in another catchment area	1.003***	1.003***	1.002***	1.002***
	(0.0003)	(0.0004)	(0.0003)	(0.0003)
Destination : equipment spending by intermunicipal groups (EPCI) * Search in rural city in the same catchment area	0.999**	0.999***	1.000	1.000
	(0.0002)	(0.0003)	(0.0002)	(0.0002)

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Table 13 – continued from previous page

	Dependent variable: staying in the same attraction area and choosing urban over rural			
	Urban origin		Rural origin	
Destination : equipment spending by intermunicipal groups (EPCI) * Search in urban city in the same catchment area	1.002***	1.002***	1.002***	1.002***
	(0.0003)	(0.0004)	(0.0003)	(0.0003)
Destination : vacancy rate * Search in urban city in another catchment area	0.768***	0.775***	0.718***	0.718***
	(0.024)	(0.026)	(0.034)	(0.034)
Destination : vacancy rate * Search in rural city in the same catchment area	0.915***	0.925***	0.957***	0.956***
	(0.011)	(0.011)	(0.008)	(0.008)
Destination : vacancy rate * Search in urban city in the same catchment area	0.705***	0.728***	0.713***	0.712***
	(0.024)	(0.025)	(0.034)	(0.034)
Destination : % of second homes * Search in urban city in another catchment area	0.935***	0.929***	0.945***	0.945***
	(0.006)	(0.006)	(0.006)	(0.006)
Destination : % of second homes * Search in rural city in the same catchment area	0.973***	0.972***	0.983***	0.983***
	(0.003)	(0.003)	(0.002)	(0.002)
Destination : % of second homes * Search in urban city in the same catchment area	0.909***	0.914***	0.910***	0.910***
	(0.006)	(0.006)	(0.008)	(0.008)
Destination : % of homeownership * Search in urban city in another catchment area	0.975***	0.969***	0.951***	0.951***
	(0.006)	(0.007)	(0.007)	(0.006)
Destination : % of homeownership * Search in rural city in the same catchment area	1.057***	1.061***	1.011***	1.011***
	(0.004)	(0.004)	(0.003)	(0.003)
Destination : % of homeownership * Search in urban city in the same catchment area	1.020***	1.001	0.963***	0.963***
	(0.006)	(0.007)	(0.006)	(0.006)
Destination : % of dwellings built before 1946 in main residences * Search in urban city in another catchment area	0.921***	0.896***		
	(0.007)	(0.009)		
Destination : % of dwellings built before 1946 in main residences * Search in rural city in the same catchment area	1.004	1.003		
	(0.003)	(0.003)		
Destination : % of dwellings built before 1946 in main residences * Search in urban city in the same catchment area	0.925***	0.898***		
	(0.007)	(0.008)		
Destination : % of foreigners * Search in urban city in another catchment area	1.190***			
	(0.017)			
Destination : % of foreigners * Search in rural city in the same catchment area	1.027*			
	(0.013)			

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Table 13 – continued from previous page

	Dependent variable: staying in the same attraction area and choosing urban over rural			
	Urban origin		Rural origin	
Destination : % of foreigners * Search in urban city in the same catchment area	1.277***			
	(0.017)			
Destination : % of people over 65 years * Search in urban city in another catchment area	1.328***	1.396***	1.093***	1.093***
	(0.019)	(0.020)	(0.012)	(0.011)
Destination : % of people over 65 years * Search in rural city in the same catchment area	0.940***	0.941***	0.981***	0.981***
	(0.007)	(0.008)	(0.005)	(0.005)
Destination : % of people over 65 years * Search in urban city in the same catchment area	1.234***	1.252***	1.107***	1.107***
	(0.018)	(0.019)	(0.013)	(0.012)
Destination : % of people 11-17 years * Search in urban city in another catchment area	1.295***	1.307***		
	(0.044)	(0.049)		
Destination : % of people 11-17 years * Search in rural city in the same catchment area	1.022	1.015		
	(0.020)	(0.020)		
Destination : % of people 11-17 years * Search in urban city in the same catchment area	1.265***	1.295***		
	(0.041)	(0.046)		
Destination : % of people 18-24 years * Search in urban city in another catchment area	1.872***	2.214***	1.156***	1.155***
	(0.039)	(0.046)	(0.028)	(0.028)
Destination : % of people 18-24 years * Search in rural city in the same catchment area	1.217***	1.230***	1.012	1.011
	(0.020)	(0.021)	(0.018)	(0.018)
Destination : % of people 18-24 years * Search in urban city in the same catchment area	1.821***	2.082***	1.201***	1.200***
	(0.039)	(0.046)	(0.028)	(0.029)
Destination : number of university higher education facilities * Search in urban city in another catchment area			0.792	0.791
			(0.221)	(0.220)
Destination : number of university higher education facilities * Search in rural city in the same catchment area			1.013	1.014
			(0.276)	(0.276)
Destination : number of university higher education facilities * Search in urban city in the same catchment area			0.802	0.801
			(0.221)	(0.220)

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Table 13 – continued from previous page

	Dependent variable: staying in the same attraction area and choosing urban over rural			
	Urban origin		Rural origin	
Destination : number of social action facilities for the elderly * Search in urban city in another catchment area	1.070*	1.053	0.970	0.969
	(0.038)	(0.044)	(0.030)	(0.030)
Destination : number of social action facilities for the elderly * Search in rural city in the same catchment area	1.011	1.001	1.032	1.032
	(0.037)	(0.040)	(0.027)	(0.027)
Destination : number of social action facilities for the elderly * Search in urban city in the same catchment area	1.065*	1.048	0.960	0.959
	(0.038)	(0.044)	(0.030)	(0.030)
Destination : number of other social action facilities * Search in urban city in another catchment area			1.239**	1.239**
			(0.090)	(0.090)
Destination : number of other social action facilities * Search in rural city in the same catchment area			0.964	0.964
			(0.098)	(0.098)
Destination : number of other social action facilities * Search in urban city in the same catchment area			1.257**	1.256**
			(0.090)	(0.090)
Destination : number of child care facilities for preschool children * Search in urban city in another catchment area			1.669***	1.671***
			(0.078)	(0.079)
Destination : number of child care facilities for preschool children * Search in rural city in the same catchment area			1.025	1.024
			(0.055)	(0.055)
Destination : number of child care facilities for preschool children * Search in urban city in the same catchment area			1.658***	1.660***
			(0.078)	(0.079)
Destination : number of security equipment (police and gendarmerie) * Search in urban city in another catchment area	0.522***	0.471***	0.493***	0.495***
	(0.118)	(0.133)	(0.118)	(0.117)
Destination : number of security equipment (police and gendarmerie) * Search in rural city in the same catchment area	0.990	0.987	1.194**	1.194**
	(0.100)	(0.104)	(0.078)	(0.078)
Destination : number of security equipment (police and gendarmerie) * Search in urban city in the same catchment area	0.531***	0.472***	0.517***	0.518***
	(0.118)	(0.133)	(0.118)	(0.117)
Destination : back-to-work assistance * Search in urban city in another catchment area			1.284*	1.285*
			(0.130)	(0.130)

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Table 13 – continued from previous page

	Dependent variable: staying in the same attraction area and choosing urban over rural			
	Urban origin		Rural origin	
Destination : back-to-work assistance * Search in rural city in the same catchment area			1.198	1.197
			(0.162)	(0.162)
Destination : back-to-work assistance * Search in urban city in the same catchment area			1.234	1.235
			(0.131)	(0.131)
Destination : urbanized area of residential type * Search in urban city in another catchment area	1.008***	1.010***	1.000	1.000
	(0.0005)	(0.001)	(0.0002)	(0.0002)
Destination : urbanized area of residential type * Search in rural city in the same catchment area	0.999***	0.998***	1.000*	1.000*
	(0.0004)	(0.0004)	(0.0002)	(0.0002)
Destination : urbanized area of residential type * Search in urban city in the same catchment area	1.008***	1.010***	1.000	1.000
	(0.0005)	(0.001)	(0.0003)	(0.0003)
Destination : urbanised area * Search in urban city in another catchment area	1.000		1.002*	1.002*
	(0.001)		(0.001)	(0.001)
Destination : urbanised area * Search in rural city in the same catchment area	0.999		1.000	1.000
	(0.001)		(0.001)	(0.001)
Destination : urbanised area * Search in urban city in the same catchment area	0.999		1.002**	1.002**
	(0.001)		(0.001)	(0.001)
Destination : population density * Search in urban city in another catchment area	1.402***	1.501***		
	(0.018)	(0.022)		
Destination : population density * Search in rural city in the same catchment area	1.068***	1.055***		
	(0.007)	(0.008)		
Destination : population density * Search in urban city in the same catchment area	1.411***	1.510***		
	(0.018)	(0.022)		
Destination : number of sports, leisure and cultural facilities * Search in urban city in another catchment area	1.017**			
	(0.008)			
Destination : number of sports, leisure and cultural facilities * Search in rural city in the same catchment area	1.010			
	(0.009)			
Destination : number of sports, leisure and cultural facilities * Search in urban city in the same catchment area	1.016**			
	(0.008)			

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Table 13 – continued from previous page

	Dependent variable: *staying in the same attraction area and choosing urban over rural*			
	Urban origin		Rural origin	
Destination : number of 1st degree teaching equipment * Search in urban city in another catchment area			1.359***	1.359***
			(0.037)	(0.036)
Destination : number of 1st degree teaching equipment * Search in rural city in the same catchment area			0.994	0.994
			(0.021)	(0.021)
Destination : number of 1st degree teaching equipment * Search in urban city in the same catchment area			1.359***	1.359***
			(0.037)	(0.036)
Difference in the % of foreigners * Search in urban city in another catchment area			1.087***	1.087***
			(0.013)	(0.013)
Difference in the % of foreigners * Search in rural city in the same catchment area			0.992	0.992
			(0.008)	(0.008)
Difference in the % of foreigners * Search in urban city in the same catchment area			1.098***	1.098***
			(0.014)	(0.014)
iv:same catchment area	6.305***	9.875***	2.718***	2.718***
	(0.136)	(0.160)	(0.089)	(0.089)
iv:different catchment area	9.162***	14.553***	2.718***	2.718***
	(0.118)	(0.138)	(0.108)	(0.107)
Observations	83,991	83,991	16,202	16,202
R^2	0.400	0.394	0.361	0.362
Log Likelihood	−48,395.100	−48,910.510	−14,230.910	−14,221.520
LR Test	64,631.110***	63,600.290***	16,093.690***	16,112.470***
	(df = 86)	(df = 86)	(df = 107)	(df = 122)
Note:				*p<0.1; **p<0.05; ***p<0.01