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Measuring rent based on maintenance costs

Mesure de la rente locative à partir des frais d'entretien
Meting van de rente op basis van de onderhoudskosten

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Translator: Jane Corrigan

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EDITOR'S NOTE

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Introduction

1 High rents are a problem in many cities. In Belgium, approximately 35 % of households are tenants, yet in Brussels the percentage rises to 62 %[1], and in the central neighbourhoods, to over 70 % (see annexe 1). Between 2010 and 2020, rents in Brussels rose by 20 % more than the health index used to limit increase of rents during a lease[2]. For the most disadvantaged 25 % of households, rents represent over 45 % of their budget[3]. Given the weight of rents in household budgets, high rents have an impact not only on the right to housing, but also on other fundamental rights such as the right to health. One in six households say they have had to postpone health care for financial reasons[4]. The most disadvantaged households are also forced to live in overcrowded housing [Dessouroux *et al.*, 2016]. Finally, it has recently been shown that every day in Brussels, 11 households receive an eviction order from a justice of the peace, and that most of these evictions are linked to arrears on rents [Godart *et al.*, 2023].

2 While several surveys have been conducted among tenants, our knowledge of landlords is still very limited. Among the grey areas concerning the latter, the extent of

maintenance and repair costs required to keep a rental property in good condition, and the extent of rent are still poorly documented.

3 The limited means used by the government to study the private rental market speaks volumes about its desire to regulate the sector. For example, the Observatoire des loyers de la région bruxelloise only interviews tenants [De Keersmaecker, 2019]. Based on this observation, this work adds to our knowledge of the cost structure of landlords, with a focus on their maintenance costs and the rent landlords extract through the rents paid by tenants.

4 There is a twofold benefit to measuring maintenance costs for rental properties. On the one hand, they are used to calculate property taxes, through the definition of cadastral income. In Belgium, this income serves as the tax base for property tax, which is the responsibility of all owners, landlords and occupiers [Bourgeois, 2021]. This tax is one of the main financial resources of Belgian municipalities. In Brussels, revenue from property tax represents approximately 30 % of the ordinary municipal budget, excluding compulsory education[5]. Cadastral income is also taken into account when owners let their property, as taxable income for personal income tax purposes[6]. Rents are therefore not taxed on an actual basis, but on the basis of the estimated cadastral income[7]. The latter is calculated by estimating an assumed rental income from which maintenance and repair costs – set at 40 % of the rents by the public authorities – are deducted[8]. A re-evaluation of this maintenance percentage would therefore alter the calculation of cadastral income and could have repercussions on taxation and public finances.

5 On the other hand, estimating maintenance and repair costs allows us to address two highly political and topical issues linked to measuring the extent of rent captured by landlords: rents regulation and housing renovation. Recent rents regulation policies (introduction of reference rents, creation of a joint commission and temporary limitation of indexation in connection with energy certificates) have led to heated debates, opposing the Syndicat National des Propriétaires et Copropriétaires and tenants' associations, among others[9]. The latter denounce the insalubrity of many homes and the social problems associated with high rents. Added to this is the issue of energy renovation and, above all, who will bear the cost: homeowners, tenants or the public authorities. However, the expenditure of landlords on the maintenance or renovation of their rental property influences the net income which they can earn from it. It therefore seems worthwhile to establish a measurement of landlords' costs and thus of the net rent extracted by landlords.

6 The aim of this article is therefore to estimate rent in the Brussels housing rental sector, through an exploratory study of more than twenty landlords. In order to do this, a sample of rental properties in Brussels is studied. A significant proportion of this sample comes from the older neighbourhoods of the inner ring, characterised by a high proportion of tenants and old buildings. In fact, most of the rental housing in these neighbourhoods dates from before World War I, over 100 years ago. As a comparison, in the Brussels region as a whole, 90 % of rented accommodation is over 30 years old, and 50 % predates World War II (annexe 2).

7 In studying these properties, we are interested in the strategies implemented by landlords in order to make their rental property profitable. For example, an owner might invest very little in maintenance in order to maximise rent, by limiting costs and taking advantage of the captive situation of tenants to charge high rents. This strategy

is seen particularly in the lower segments of the rental market [Topalov, 1984; Bergerand, 2024]. The advanced state of deterioration of certain segments of the housing stock is therefore the result of rational calculations made by landlords. The condition of housing is an important point to consider when calculating the extent of maintenance costs. Housing which has not been invested in for a long time may require substantial maintenance costs in order to catch up.

8 When we look at the level of maintenance and repair costs, we are really looking at the broader question of the high cost of rents. Is it because housing requires high costs that landlords pass them on to the rents they charge? What constitutes the price of the rents, and why are they so high?

9 When looking at the elements which make up the price of the rents, we are led to consider the economic theories of price formation. Neoclassical economists abandoned the labour theory of value and explained prices in terms of supply and demand models. On the other hand, for classical economists, the value of a commodity is equivalent to the amount of labour required to produce it. We use the classic labour-value hypothesis as it provides a benchmark for measuring the rent extracted by landlords from the rents paid by tenants.

1. Theoretical framework

10 The Corn Laws debate in England (1773-1815) opposed the industrial bourgeoisie and the landed aristocracy regarding the importation of American wheat. The former, represented by David Ricardo, advocated opening the market to imports, as this kept wheat prices low and allowed them to pay their workers less. The latter, supported by Thomas Malthus, advocated the introduction of customs barriers in order to guarantee high prices and thus preserve their incomes. Malthus followed the writings of the Physiocrats[10], according to whom only the earth created wealth, which was sacredly considered as a “blessing from Providence”. In contrast, Ricardo, leader of the classical economists and defender of the industrial bourgeoisie, maintained that only labour created value. In his view, land rent extracted by agricultural landowners could only be seen as an obstacle to economic development, to the extent that it was not a new creation of income, but rather an appropriation of income which already existed [Ricardo, 1815]. For this reason, Ricardo is often associated with describing landlords as “parasites” [Harvey, 1982: 425; Christophers, 2010: 96].

11 Later, Karl Marx took up the classical labour-value hypothesis, in his demonstration of the capitalist exploitation of labour power [Boncoeur, 1997]. According to him as well, the value of a commodity was equivalent to the amount of labour required to produce it. Nevertheless, he added that, like capitalists, landlords exploited workers in the sense that they appropriated part of the surplus labour[11]. He also took up Ricardo's criticism of the parasitic nature of land ownership:

> This rent is characterised... by the palpable and complete passivity displayed by the owner, whose activity consists simply in exploiting advances in social development [...] towards which he does not contribute and in which he risks nothing, unlike the industrial capitalist [Marx, 1894: 703].

12 In practice, the labour-value hypothesis seems like a relevant explanation for price formation in a context of the capitalist production of standardised goods. For some commodities, empirical observations have already been made. This is what economist

Jean Fourastié did by conducting various studies of the economy in the past to establish the actual price movements of numerous commodities (wheat, rye and oats) based on facts [Fourastié and Bazil, 1984]. The price curves for these commodities have remained parallel, with a strong downward trend, even though demand for them has changed significantly (decreasing demand for rye and oats, increasing demand for wheat). This parallel evolution calls into question the simple predictions of supply and demand models, which can only account for certain short-term variations. That said, over the long term, the decrease in prices appears to be more closely linked to increases in agricultural productivity. It therefore seems plausible that in a capitalist framework, prices tend to converge towards value, i.e. the amount of labour required to produce a commodity.

13 On the other hand, what happens when ownership plays a significant role and we depart from the framework of capitalist production, which is characterised by a high degree of competition? This is the case with land, which is generally considered as a special commodity, with a price but no value, as it is not the product of labour. If we follow the logic of labour value, housing as a commodity has the particularity of possessing a value, as it has been produced, yet it stands on land which it cannot be extracted from.

14 The "parasitic" nature of land ownership, outlined by Ricardo and taken up by Marx, invites us to rethink the effective contribution made by landlords in letting their properties, in terms of maintenance and management. This contribution can be made directly by landlords who do the work themselves, or indirectly, by paying people for their work (management agents or estate agents).

15 Here, we have used the concept of rent rather than profitability. While rent comes within the scope of classical economics, profitability is more widespread among neoclassical economists. The concept of rent allows us to highlight the wealth accumulated by landlords through rents. This rent can be shared between intermediaries (management agencies, banks, notaries, insurance companies, etc.) and potential successive owners. Profitability, on the other hand, is calculated by dividing the rents by the money invested (or by the market value, i.e. the price an owner could obtain if he or she sold his or her property). This notion is useful for understanding the choices made by investors (who are assumed to be rational and to invest in order to obtain the highest return), but it normalises the idea that money creates money, and obscures exploitation. For this reason, we have focused on rent.

16 Classical economists' approach provides a framework for analysis in terms of the amount of labour required to produce and maintain (or manage) a housing commodity. This makes it possible to propose a method for assessing the scale of rent, considering it to be equivalent to the difference between price and value[12]. In practice, the aim is to approximate the net rent on the rental market by deducting maintenance costs, insurance costs and taxes from rents, while also estimating the number of properties subject to a mortgage.

17 In order to measure rent, we have followed the recommendations of Marx [1894] taken up by Topalov [1984], not to take the purchase price into account. Rent can be generated either through rents or through the resale price[13]. There is no reason to measure the amount of income differently for an owner who has just bought the property than for one who has received it (e.g. through an inheritance).

18 In theory, we would have to take the building costs into account for the housing, but in practice, these costs are very low if we consider the entire lifespan of the buildings. The housing stock in Brussels is very old, and it is reasonable to assume that construction costs have been paid off in most cases. In other words, the accumulated rents have already covered the construction costs at least once.

2. Estimated maintenance costs

19 In order to have an initial idea of the scale of maintenance and repair costs for rental properties, we have carried out a review of the grey literature on the subject. There are few studies which actually quantify the scale of maintenance and repair costs. These are often either cost-benefit analyses [BCG, 2013] which propose prospective results, or studies focused on the factors which determine maintenance costs [Acolin and Walter, 2025; Springer and Waller, 1996]. Table 1 lists several studies on housing maintenance and repair costs, for both public and private stakeholders. These costs are divided by the corresponding rents in order to obtain ratios of cost to rents. The figures presented cover different types of work, for different types of housing. It is therefore difficult to compare them, but they provide an idea of the extent of costs found in the literature[14].

Table 1. Comparison of maintenance and repair costs in Belgium and France

$\frac{\text{Expenses}}{\text{Rents}}$	Type of housing	Description, remarks, hypotheses	Source
20 % ($=\frac{75}{375}$)	French social housing (Toulouse)	"Maintenance effort" included in the estimated break-even rent, which should enable the organisations to meet all of their current expenses. Figure obtained from the graph presented in the document. Monthly figure (€).	Tutin, 2017
21 % ($=\frac{47\,399}{224\,002}$)	French social housing (France)	The costs considered include "improvements and major maintenance (including related costs and fees)". The costs and rents surveyed cover the entire French social housing stock (all social housing excluding collective housing), i.e. 34 193 million dwellings. Annual figures for 2012 (millions of euros).	Commissariat général au développement durable, 2014
15,8 % ($=\frac{5\,263\,316}{33\,180\,490}$)	French social housing (Charente)	"Maintenance costs" which include routine maintenance, major maintenance and upkeep. Figures obtained from financial accounts for all housing managed by the office. Annual figures for 2017.	Office Public d'Habitation Logelia, 2019
19,8 % ($=\frac{93}{470}$)	French social housing (Ile-de-France)	"Maintenance costs" for a typical 65m2 social housing unit "near Paris". This cost includes routine maintenance (heating, lift, common areas) and major works (major maintenance and repairs). We have considered rent net of assistance (national average in euros).	BCG, 2013
4,3 % ($=\frac{885}{20\,294}$)	Belgian private housing: housing stock of Home Invest Belgium (Brussels)	"Technical costs" (which include repairs, insurance premiums, major repairs and compensation by insurers) compared with "Net rental result". Figures from the 2023 annual report (in thousands of euros).	Home Invest Belgium, 2023

20 The figures presented here are well below the 40 % of rental income established in the Belgian cadastral income calculation, as the maximum is 21 % (French social housing). The minimum is 4,3 %, and probably concerns more recent properties, as they are made available to let by the real estate company Home Invest Belgium, whose rental stock is described as "young, sustainable and of high quality"[15].

3. Methodology

21 For this exploratory survey, we conducted interviews with landlords that are natural persons[16] who have owned at least one rental property for at least 5 years. The idea was to document maintenance and repair costs over a long enough period of time. Given the variable terminology used to designate maintenance and repair costs, we have gathered figures for expenditure on substantial maintenance: works required due to normal or structural wear and tear (including structural works): roof repairs, boiler, lift, insulation, etc.[17] These costs can be directly linked to the property (e.g. redoing the bathroom) or indirectly (maintenance of a shared lift).

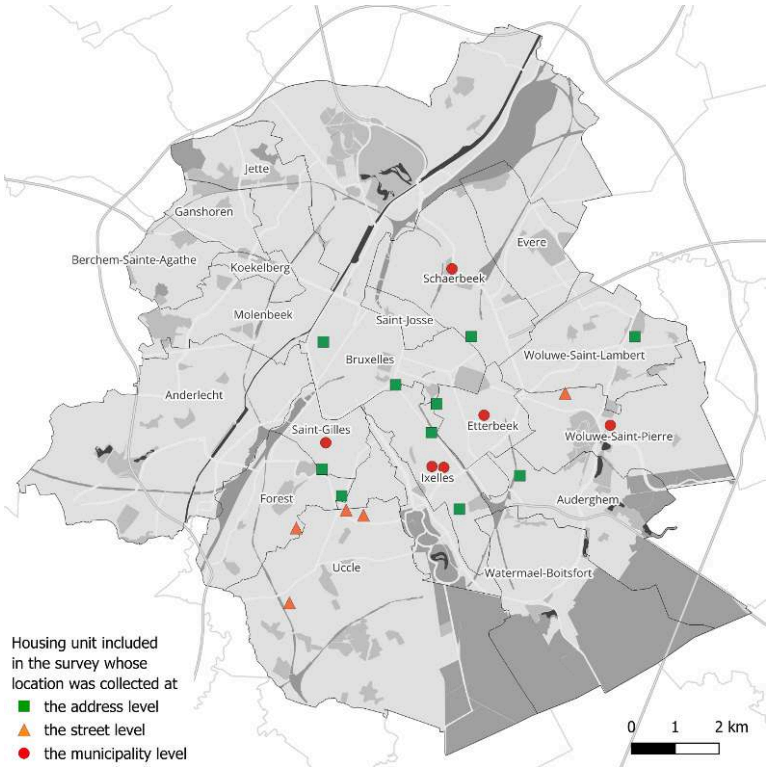
22 In total, we have included maintenance and repair costs for 22 housing units, from interviews with 15 landlords. As some of these landlords own multiple properties, we documented maintenance and repair costs for two of them.

23 In addition to expenses, we also took into account the rents of the properties studied, in order to establish ratios of expenses to rental income. For each case, we have recorded the current rents for the division of costs by rents. This creates a slight bias, as rents tend to increase from year to year. Nevertheless, we were able to measure this bias in two cases where it was possible to record the exact change in rents from year to year, and it appeared to be fairly negligible (annexe 6).

24 It was difficult to collect data for a period of more than 5 years. For only 12 of the 22 cases, we were able to collect maintenance and repair costs over 1, 5 and 15 years, and for the remaining 10, over 1 and 5 years only.

25 Respondents were selected based on two criteria: the properties in the study had to be located in Brussels and let by private individuals who had been letting their property for at least 5 years. We contacted key stakeholders such as management agents and landlords' associations, and used our personal social networks. Over 50 landlords were contacted, but only 15 accepted the request to take part in an interview. We were also unable to cover the entire territory of the region of Brussels. We feel that it is important to emphasise the fact that the people who took part all volunteered willingly. It is unlikely that landlords who neglect the upkeep of their property would have wanted to speak about it. Apart from this, there is a bias in that the data used depend on the memory and willingness of the people interviewed. In preparation for the interview, the people interviewed were asked to bring along any invoices or figures they had and to estimate upwards the costs of the various works completed. For 6 cases studied, we had access to an exhaustive and accurate inventory of maintenance and repair costs, as the management of the rental properties was outsourced. In 7 other cases, the respondents had brought all of their invoices to the interview. For the remaining 9 cases, the people interviewed recalled their expenses during the discussion, sometimes with some notes or a quick consultation of their records during the interview.

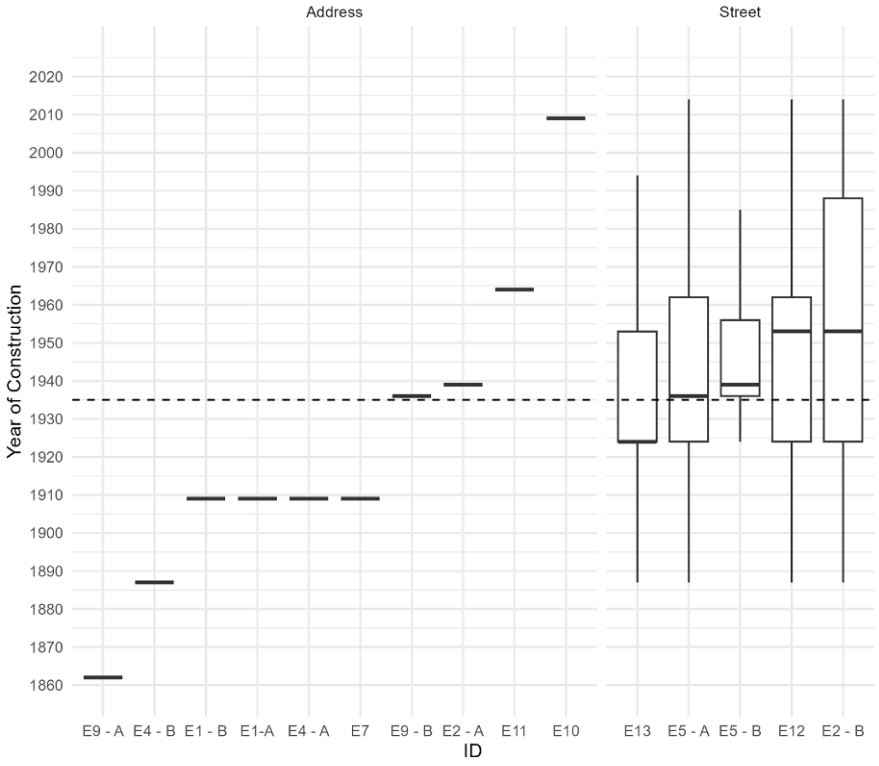
Figure 1. Sample distribution



26 Figure 1 shows the spatial distribution of the sample. The properties studied are located mainly in the more affluent southeast quadrant (annexe 3) and are overrepresented in neighbourhoods close to the city centre (inner ring) which are characterised by a high proportion of tenants (annexe 1) and old buildings (dating mostly from before World War I, annexe 2).

27 The housing units in the sample are therefore old for the most part (figure 1). Of the 10 housing units whose exact address was known, 9 date from before World War II (more than 85 years before the survey). For the housing units whose street name was provided only, all of the housing units in the street were considered and were illustrated by boxplots (figure 2). In summary, the median year of construction for the sample[18] is 1935 (89 years before the survey). This justifies why we approximate the value without taking into account the labour required to produce the housing, on the assumption that this labour has been paid off.

Figure 2. Year of construction of housing units in the sample depending on whether the location could be identified at the address level or only at the street level



Median = 1935
For locations identified according to street, the "boxplot" graphs represent the distribution of years of construction for all dwellings in the street.
Source: 2015 land registry

28 Case studies were categorised according to the general condition of the property. In fact, maintenance and repair works (which should be carried out to keep a property in good condition) are more or less expensive depending on the condition of the property. This classification was established according to what was reported by the landlords interviewed, and is made up of four categories: "Poor-renovations to come", "Normal", "Catch-up" and "Renovated" (annexe 4).

29 Finally, in order to calculate assumed wages and make the link with the concept of labour value, we also wanted to study the working time allocated by respondents to the management of their rental property, including the time involved in maintenance management. This was also one of the questions asked during the interviews.

30 To conclude this section on the methodology of our work, Table 2 summarises the various data collected. This information is used for the different results presented in the following section.

Table 2. Raw data collected

ID	Monthly rents (€)	Annual rents (€)	Expenses over the last year (€)	Expenses over 5 years (€)	Expenses over 15 years(€)	Condition of the property (category)	Acquisition	Monthly indexed RC (€)	Workload (hours/month)	Outsourcing monthly cost (€)
E1-A	2 600	31 200	900	14 000	15 000	Normal	inheritance	1 933	4	-
E1-B	1 800	21 600	4 000	4 000	14 000	Normal	inheritance	4 467	4	-
E2-A	3 300	39 600	9 642	9 642	12 642	Catch-up	inheritance	9 554	outsourcing	230,5
E2-B	1 200	14 400	1 130	2 130	7 130	Normal	IP & RP – loan	3 574	outsourcing	97,17
E3	1 100	13 200	9 500	9 500	10 500	Normal	IP & RP - loan	1 162	1	-
E4-A	4 328	51 941	8 076	55 259	-	Normal	IP - loan	3 047	outsourcing	372,17
E4-B	2 650	31 800	1 908	17 326	-	Poor - renovations to come	IP - loan	3 173	outsourcing	246,5
E5-A	1 655	19 860	1 000	4 000	19 000	Normal	inheritance	3 231	3	-
E5-B	2 330	27 960	2 500	8 500	-	Normal	inheritance	5 243	3	-
E6-A	1 300	15 600	2 400	2 400	-	Poor - renovations to come	IP	3 169	2	-
E6-B	1 600	19 200	1 000	5 400	-	Normal	IP	2 971	2	-
E7	2 700	32 400	0	150 000	-	Renovated	IP & RP - loan	5 574	28	-
E8-A	715	8 580	0	4 800	13 300	Catch-up	IP- loan	1 100	outsourcing	69,5
E8-B	5 800	69 600	0	1 000	-	Renovated	IP	6 207	outsourcing	513,6
E9-A	1 300	15 600	3 542	5 934	6 934	Normal	RP – loan	2 830	8,33	-
E9-B	1 230	14 760	2 033	2 283	-	Normal	RP – loan	1 963	1	-
E10	1 180	14 160	1 200	4 200	5 200	Normal	IP	3 128	1	-
E11	3 256	39 072	500	289 690	-	Renovated	inheritance & IP	9 584	1	-
E12	1 000	12 000	100	10 000	-	Renovated	IP- loan	1 508	2	-
E13	1000	12 000	0	1 300	3 300	Normal	IP	1 205	1	-
E14	2750	33 000	500	15 000	115 000	Renovated	IP	3 479	4	-
E15	1175	14 100	1 500	2 300	10 300	Normal	IP	4 135	6	-

IP = Investment project
RP = Residential project
CI = Cadastral income

4. Results

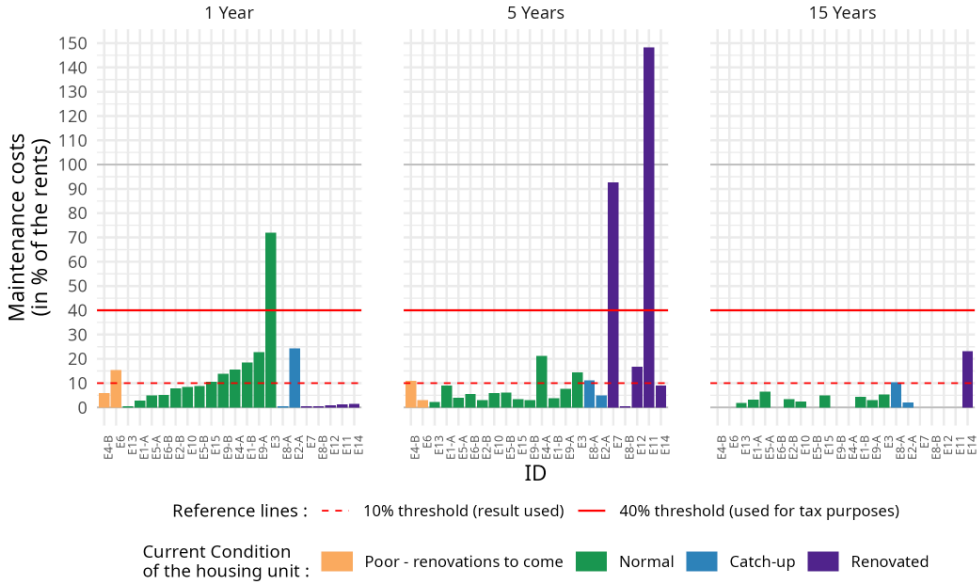
31 Here we present the results obtained for the quantification of maintenance and repair costs over the different periods studied (1 year, 5 years and 15 years), as well as for the hourly wages of the respondents.

4.1. Maintenance and repair costs

32 In Figure 3, we show all of the Expense/Rents ratios classified according to the condition of the property, established for the 22 cases studied, over 1 year, 5 years and, for a reduced sample, 15 years.

33 In the vast majority of cases studied (figure 3), maintenance and repair costs represent far less than the 40 % of rental income used to calculate cadastral income. In fact, out of 22 cases studied, in the last year there was only one property whose landlord spent more than 40 % of his rental income on maintenance. Over the last 5 years, only two landlords have spent more than 40 % of their rental income on the maintenance of their property.

Figure 3. Maintenance and repair costs in % of rents, according to the retrospective period (1, 5 or 15 years) and the current condition of the property



34 Over the past year, in half of the cases studied, the respondents allocated less than 6,9 % of their rental income to property maintenance, which in this case corresponds to less than € 1 165 (median, see annexe 5). In three out of four cases, maintenance costs represent less than 15 % of rental income. Some landlords spent nothing on property maintenance over the past year (E8-A, E8-B and E7), while others spent much more than the average (e.g. E3).

35 Over the last 5 years, for half of the housing units in the survey, expenditure represents less than 6 % of rental income, or less than € 5 667 (median, see annexe 5). Furthermore, in one out of four cases in our sample, less than 3,4 % of rental income is allocated to maintenance; in three out of four cases, the figure reaches 11,1 %. There is a slight variation when we consider a longer period, but the figures are similar and are well below those found in the grey literature (around 20 %) or the figure used to calculate cadastral income (40 %). Furthermore, whether looking back 1 or 5 years, the cases in which maintenance and repair costs are significantly higher (over 40 % of rental income) can be explained by one-off investments whose amounts should actually be considered within a longer period (E3); to catch up with maintenance work (E7); or to carry out a complete renovation (E11). In fact, these investments should be considered over a longer period:

> Everything should be alright for the next several years. Renovations were necessary anyway. It isn't profitable now, but it's a good prospect for the future as we're thinking of the long-term, beyond the repayment of the loan. For the moment it's a blank transaction, but I'm not worried because we've done a good job. (E11)

36 Data collected over 15 years for part of our sample confirm our initial results. There is little difference between the proportion of rental income allocated to costs over 5 and 15 years (figure 3). Only two cases show a difference of more than 5 % between the two periods. These are namely the case mentioned above in which the landlord had to invest in the roof of his building over the past year (E3), and a case in which major renovations took place when the property was made available to let 15 years ago (E14).

In 10 out of 12 cases, over the last 15 years, maintenance costs represent less than 10 % of rental income.

> Maintenance is a way of ensuring the value of your property. With no moves [of tenants] and a property in good condition, costs are very limited. (E14)

37 In addition to the need to consider the long-term, we also wanted to take into account the condition of the property. While it seems obvious that a property in poorer condition costs more to maintain than one which is new or in good condition, in our sample it is not easy to draw conclusions specific to the categories established according to property condition. In fact, costs vary, even within the categories established according to the condition of the properties studied. However, in our sample of 22 properties, although there was some variation in maintenance costs, they rarely exceeded 10 % of the rent. This conservative figure will be used for the remainder of the article. In fact, the few cases studied in which costs exceeded this amount can be explained by high one-off investments as part of a long-term investment or in order to catch up. It should also be borne in mind that the landlords interviewed were willing to quantify their costs. Yet people who underinvest in maintenance and repair would probably be more reluctant to declare these costs. We are therefore likely to be dealing with landlords who make sure that their rental property is in good condition, with higher costs than in the case of underinvestment.

> I have a certain approach. As I've been lucky enough to receive an inheritance, I try to let decent flats and don't charge rents which are too high, also to keep tenants for as long as possible. The fees in the case of new tenants are expensive, as is building wear and tear. But I carried out some works 10 years ago, and since then I haven't had many costs, although with the increasingly restrictive legislation I'm a bit worried [...] And there are also expenses to be borne by the tenant. (E5)

4.2. Measuring the rent

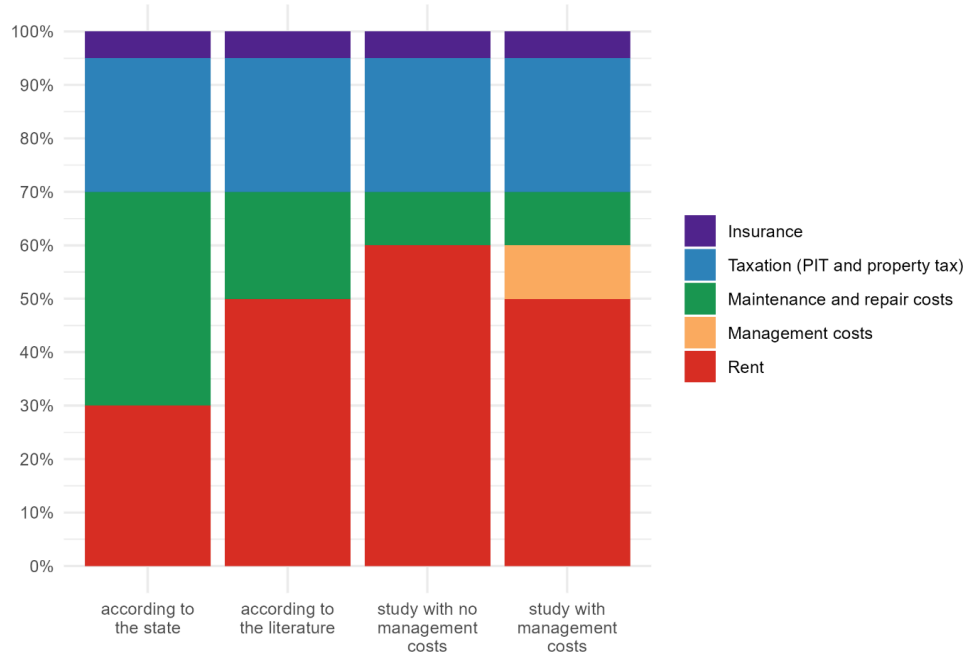
38 Based on maintenance costs, it is possible to estimate the extent of the rent appropriation captured by landlords (figure 4). In order to do this, all of the costs of letting a property (maintenance costs, property taxes and insurance) are deducted from the rents. For property taxes, which are estimated at 25 % of the rents, we use estimates based on the cross-referencing of data from the Observatoire des Loyers and the land registry [Périlleux, 2024: 11-13].

39 This calculation, which takes into account maintenance and repair costs of 10 %, results in an estimated rent of approximately 60 % of the rents in our sample. This is higher than the rent using the maintenance and repair costs as provided for in the cadastral income calculation by the public authorities (costs of 40 % and rent of 30 %), as well as those estimated in the grey literature (costs of 20 % and rent of 50 %)[19].

40 We also propose a calculation of this rent which takes into account the work carried out by landlords, by including management fees in our calculation (last column, figure 4). In order to estimate the remuneration of the landlords' work, we considered the outsourcing fees declared by the landlords of the six properties in our sample whose management is outsourced. For these properties, between 7 % and 9 % of the rental income is allocated to outsourced management: in the remainder of this article, we have rounded up this proportion out of caution, also estimating that 10 % of rental income goes towards the remuneration of work involved in letting a property. The estimated rent is therefore approximately 50 % of the rents in our sample. It should

also be noted that estimates of maintenance and repair costs, as presented in the literature or in the calculation of cadastral income by the public authorities, do not take management work into account explicitly. In conclusion, it appears that our estimate of the rent is much higher than that anticipated in the taxation policy, even when management work is taken into account.

Figure 4. Share of rent as a % of rents



41 As mentioned above, the purchase price is not taken into account as an expense in the proposed estimation[20]. However, one might wonder how banks profit from part of this to what extent the rent is partially appropriated by banks, which may earn interest on dwellings acquired through mortgage financing. According to our estimates[21], approximately half of the housing owned by people living in Brussels is not subject to a mortgage. Thus, the banks profit from part of the rent, but for many rental properties, the rent is kept in its entirety by the landlords. In addition, the rent can be shared between successive owners, particularly in the event of resale. Note that our estimate of rent does not include any capital gain on resale, as we do not take into account the initial purchase price.

4.3. Hourly wage

42 Letting housing requires work on the part of the landlords (visits, relations with tenants, maintenance, administrative management, and possible contact with a property manager, the authorities or building professionals). To account for this work, we present a calculation of assumed wages. The monthly workload reported by the various people interviewed appears to be rather low: only three people in our sample work more than 4 hours a month to let their property. Thus, if rent is considered as remuneration for work done, for the vast majority of cases studied, the hourly wage is particularly high, even when maintenance costs are taken into account (table 3). With the exception of two cases (E7 and E11[22]), hourly wages are well above the average gross

wage in the Brussels region. For a full-time 38-hour week (i.e. roughly 164 hours per month), the hourly wage is € 25,5 for someone with a bachelor's degree and € 37,5 for someone with a master's degree[23], while the median assumed hourly wage in the sample is approximately € 400. It should be noted that in Table 3, we have calculated assumed hourly wages net of maintenance and repair costs, based on the costs identified in our survey (10 %) and on what the public authorities estimate landlords have as maintenance costs (40 %).

43 The results obtained on the cost and remuneration of the work involved in letting properties lead us to believe that rental income does not remunerate work alone, but is in fact a form of economic rent. Furthermore, as mentioned above, when rental management work is actually remunerated as such, i.e. when it is outsourced, the remuneration is less than 10 % of the rental income. Therefore, even when landlords delegate the work involved in letting a property, they manage to extract rent without producing any real work.

Table 3. Data compared according to the concept of labour value

ID	Monthly workload (hours/month)	Average net hourly wage (€/h) over 5 years according to our estimates	Average net hourly wage (€/h) over 5 years according to the state	% of rental income allocated to outsourcing
E2 - A	outsourcing	-	-	6,98
E2 - B	outsourcing	-	-	8,10
E4 - A	outsourcing	-	-	8,60
E8 - B	outsourcing	-	-	8,86
E4 - B	outsourcing	-	-	9,30
E8 - A	outsourcing	-	-	9,72
E11	1	-1572,17	1953,60	-
E13	1	978,33	600,00	-
E3	1	941,67	660,00	-
E10	1	1110,00	708,00	-
E9 - B	1	1191,95	738,00	-
E12	2	416,67	300,00	-
E6 - A	2	630,00	390,00	-
E6 - B	2	755,00	480,00	-
E5 - A	3	529,44	331,00	-
E5 - B	3	729,44	466,00	-
E1 - B	4	433,33	270,00	-
E1-A	4	591,67	390,00	-
E14	4	625,00	412,50	-
E15	6	189,44	117,50	-
E9 - A	8	144,13	93,60	-
E7	**28**	**7,14**	**57,86**	

Conclusion

44 In conclusion, this exploratory analysis of landlords of some twenty housing units shows that their maintenance and repair costs are well below those estimated in the grey literature, which tend to be approximately 20 %, as well as the 40 % provided for in the calculation of property taxes in Belgium [Bourgeois, 2021]. Our calculations make a conservative estimate of these maintenance costs at around 10 % of the rental income.

45 In order to calculate the extent of rent extracted from rental housing, we have followed the reasoning of classical economists, according to whom rent is equivalent to the

difference between price (rents in the case of letting housing) and value (the amount of labour required to produce the commodity) [Das, 2023]. Rent has been calculated according to the fact that most of the housing in Brussels is old and therefore has long been paid off. Our survey revealed that, for the sample studied, the rent is estimated at approximately 50-60 % of the rents.

46 Furthermore, the time required to let the property (administrative procedures, relations with tenants, etc.) is approximately 4 hours per month per owner per property studied. This low number of hours in relation to rental income results in assumed wages well above the average wage, which suggests that rental income should be considered as something other than remuneration for work.

47 The difficulties in extending the analysis geographically, by market subsegment or even with respect to the owner's assets, are explained essentially by the size of the sample and the difficulties in conducting such a survey with landlords who are often suspicious and reluctant to provide details regarding their costs and income. It seems clear to us, however, that this survey should be reproduced on a much larger scale in order to make better use of the different variables already identified (condition of the housing, location, type of property purchase, etc.), as well as to be able to add other variables regarding the housing (its location, year of construction, etc.) and its owners (size of wealth, income, proximity to rental properties, etc.).

48 Several countries, such as Germany, France and Belgium, are introducing reference rents which are intended to be objective and are based on market prices, and to establish the idea that they are “fair” rents. The use of a method such as the one developed in this article, based on actual observed maintenance costs, would provide much lower references and highlight the rent extracted by landlords thanks to the rents paid to them by their tenants.

49 Finally, at a time when the budgets of the Brussels region and the municipalities are being hotly debated, our results could be used to review property taxation. It has already been pointed out [Bourgeois, 2021; Périlleux, 2023] that current property taxation is based on cadastral income for which there has been no equalisation since 1980 (based on 1975 data). Our results call into question the very calculation of this cadastral income, which is conceived as assumed rents net of maintenance costs. In fact, while the calculation is designed to immunise 40 % of the assumed rents for maintenance costs, our results reveal a certain disparity in the costs observed, with a median value of approximately 10 % of the rents. This calls for a reconsideration of property taxation. For example, taxation could be based on actual rental income, from which only expenses actually incurred could be deducted.

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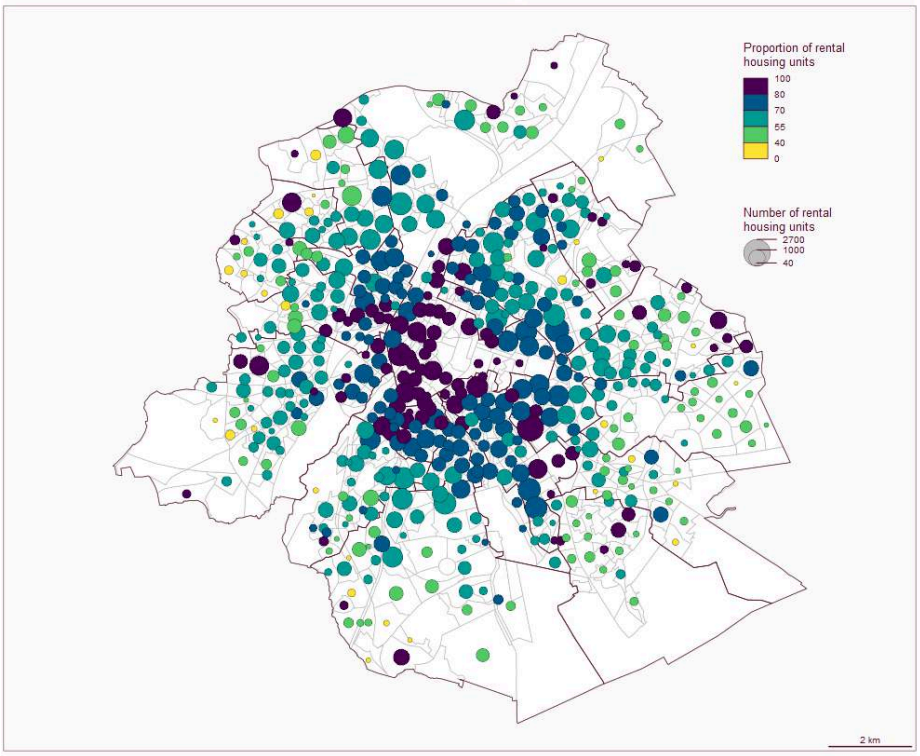
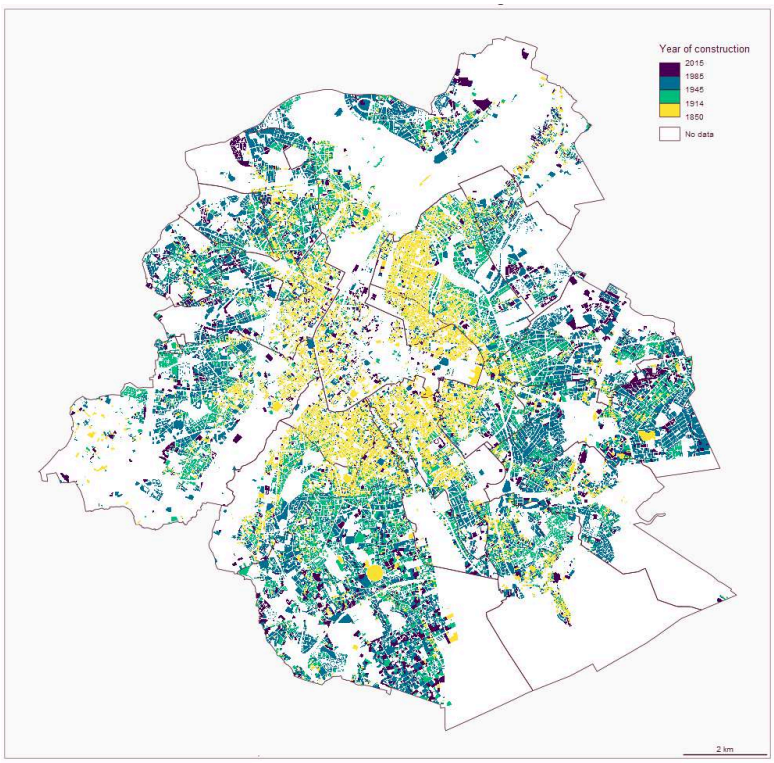
APPENDIXES

Annexe 1. Map of the proportion of rental housing



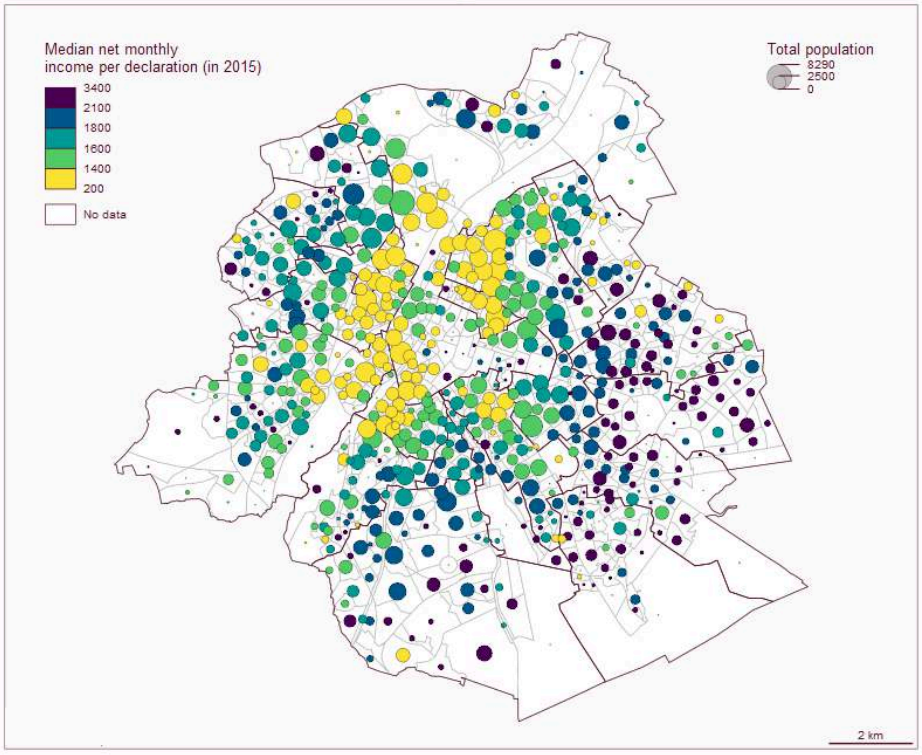
Source: PÉRILLEUX, Hugo, 2023. *Extraction de la rente dans le secteur de la location de logements.* Doctoral dissertation in geography. Brussels: Université libre de Bruxelles
Data: Administration Générale de la Documentation Patrimoniale (2015)

Annexe 2. Map of the year of construction of housing



Source: PÉRILLEUX, Hugo, 2023. *Extraction de la rente dans le secteur de la location de logements.* Doctoral dissertation in geography. Brussels: Université libre de Bruxelles
Data: Administration Générale de la Documentation Patrimoniale (2015)

Annexe 3. Map of median income per declaration



Source: PÉRILLEUX, Hugo, 2023. *Extraction de la rente dans le secteur de la location de logements.* Doctoral dissertation in geography. Brussels: Université libre de Bruxelles
Data: Statbel (2016)

Annexe 4. Classification of property condition

Poor - renovations to come: The respondent admits to letting a property in poor condition, with a lot of renovation works to be done. The two respondents for whom this was the case are both owners of multiple properties and felt that the property in question was in poor condition in comparison with their other property/properties. They both indicated that works were planned in the coming years to improve the condition of the property. Not a single person interviewed admitted to having a rental property in poor condition, with no plans to do anything about it in the near future.

Normal: No recent works but no problems in terms of use. Potential for improvement in terms of energy efficiency, but condition of property largely satisfactory.

Catch-up: Works carried out in recent years due to the condition of the property. Other works are planned for the short and long term, and/or are under way. These are properties which have been under-maintained for a number of years, but whose owners have undertaken to improve their condition in recent months or years.

Renovated: Completely renovated at the time of letting (major works carried out recently). These are restored properties[24].

Annexe 5. Indicators of interest for analysis of data collected regarding maintenance costs

Expenses/Rent	Over the past year	Over the last 5 years	Over the last 15 years

			(reduced sample)
Average	11,0 %	17,6 %	5,9 %
Median	6,9 %	6,0 %	3,8 %
Minimum	0 %	0,3 %	1,8 %
Maximum	72,0 %	148,3 %	23,2 %
1st quartile	1,3 %	3,4 %	2,8 %
3rd quartile	15,0 %	11,1 %	5,6 %

Annexe 6. Taking rent indexation into account

For two case studies (two properties from the same owner, E4-A and E4-B), we had access to the annual rent, year by year over five years, as well as the exact costs, year by year over five years. We were therefore able to produce a very accurate comparison of property maintenance costs and rents. However, as for all of the other properties, we only consider the rent in effect at the time of the interview and have proceeded in the same way for these two properties as for the rest. As an indication, however, we are showing what the result would have been if we had taken the annual rent indexation into account.

For the sum of rents over 5 years, for which we have not taken indexation into account, we have simply multiplied the current rent by 12 (to obtain the annual rent), and then by 5.

ID	**Current rent (€)**	**Sum of rents over 5 years excluding indexation (€)**	**Sum of rents over 5 years including indexation (€)**	*Expenses/Rent* **5 years - excluding indexation (%)**	*Expenses/Rent* **including indexation (%)**
E4-A	4 328	259 705	240 233	21,3	23,0
E4-B	2 650	159 000	149 310	11,90	11,6

For E4-A we therefore have a difference of only 1,7 % when comparing the 5-year Expenses/Rent ratio with and without rent indexation, and for E4-B we have a difference of only 0,7 %. We have therefore shown that when drawing conclusions about amounts, it seems acceptable not to take rent indexation into account for reasons of data simplification.

NOTES

1. Census 2021 data, own calculations.
2. Data from Observatoire des Loyers 2010 and 2020, own calculations.
3. EU-SILC 2023 data, own calculations.
4. National Health Interview Survey 2018 data, own calculations.
5. See IBSA table 10.2.1.7 on Finances of Brussels municipalities, 2010-2021. https://ibsa.brussels/themes/finances-publiques/finances-des-communes-bruxelloises
6. The personal income tax rate varies from 25 % to 50 % according to bracket, based on the amount of income.
7. The average net rental value is therefore a construct. It is also based on 1975 reference data. In order to have a more recent reference date, it would be necessary to carry out a cadastral equalisation, i.e. an update of the estimated average net rental value of the various land parcels in Brussels and elsewhere in Belgium. In principle, the law stipulates that cadastral equalisation must be carried out every 10 years, but it will soon be 50 years since the cadastral income was last updated [Bourgeois, 2021].
8. In the income tax code, maintenance and repair costs to keep a rental property in good condition are set arbitrarily at 40 % of rental income, with no explanation of the calculation, estimates or assumptions which would justify this percentage. The assumed rent is estimated by AGPD (Administration Générale de la Documentation Patrimoniale). For more information, visit the SPF Finances website: https://finances.belgium.be/fr/sur_le_spf/structure_et_services/administrations_generales/documentation_patrimoniale
9. For example, the SNPC article: Les propriétaires ne doivent pas hésiter à indexer leurs loyers. Le CRI No 479. Available online at: https://www.snpc-nems.be/news/articles/les-proprietaires-ne-doivent-pas-hesiter-a-indexer-leurs-loyers [Accessed on 14/03/2024]
10. Before the classical economists, the physiocratic economists (as of the 18th century) laid the foundations of economic liberalism. They are known for claiming that the creation of value comes from agricultural activity, and for advocating a “laissez-faire” economy in order to maximise wealth [Guigou and Jean-Louis, 1982].
11. Surplus labour, in hours of work, and surplus value, which is the equivalent in money, are concepts proposed by Marx to describe the part of a working day which is neither used to recoup the cost of machinery nor to remunerate wage earners, but is taken by the capitalist.
12. Note that the rent measured here is a monopoly rent, where monopoly rent = price - value [Das, 2023].
13. See [Périlleux, 2023: 30-31] for more details on the links between price and rents.
14. In many cases, these figures relate to simulations for a group of housing units and not for individual housing units, unlike the figures from the empirical survey presented later. These are the most disaggregated figures we could find, but they sometimes include more than what we are studying in terms of costs in the rest of this work (e.g. insurance premiums in the Home Invest Belgium study). In addition, the various groups considered cover housing units with sometimes differing characteristics (size, age, condition, etc.). Here, we simply provide an overview of different amounts which can be compared reasonably with the proportion of rental income which the public authorities consider to represent maintenance and repair costs.
15. https://corporate.homeinvest.be/en/about-us/profile/
16. This choice is justified by the fact that natural landlords account for the bulk of owners of rental properties on the private market (see the work by [Périlleux, 2023]).
17. The tenant is responsible for minor maintenance.
18. Considering housing for which we know either the street or the exact address.
19. In our calculation of income, in addition to maintenance, management and tax expenditure, we have included insurance costs amounting to 5 % of rental income (figure 3).

20. This estimate is taken from [Périlleux, 2023: 187-189]. Calculations were based on a review of grey literature and an insurance market study.
21. The Observatoire du Crédit et de l'Endettement publishes the number of mortgage loans. This number was related to the number of dwellings owned by Brussels residents estimated using an analysis of the 2015 land registry [Périlleux, 2023: 189]. However, it is not possible to know whether these funds are used for the purchase of rental housing or for owner-occupied housing.
22. As mentioned above, these are cases in which the landlords explained that they had made a significant investment (one-off investment during the period under study).
23. We have used the figures provided by Statbel for the most recent year, i.e. 2021. As wages are indexed, the hourly wage is certainly higher today, but the orders of magnitude for comparison are the same. Furthermore, we are considering the two levels of education of the people interviewed. The figures used are available at: https://statbel.fgov.be/fr/themes/emploi-formation/salaires-et-cout-de-la-main-doeuvre/salaires-mensuels-bruts-moyens#figures [accessed on 10/07/2024]
24. *In our sample, we do not have any cases with a completely new property (newly built).*

ABSTRACTS

This article presents an exploratory empirical analysis of the actual contribution made by landlords to the maintenance of rental housing, and an estimate of the extent of the rent. This work is in keeping with the hypotheses of classical economists, according to whom rent is equivalent to the difference between the price and the value of a commodity, i.e. the amount of labour required to produce it. Through an analysis covering different retrospective periods, maintenance costs are estimated at 10 % of rents, which is well below the 40 % provided for in the calculation of cadastral income used as the tax base for the taxation of rental income. Ultimately, for the various cases studied, the rent would be around 50 % to 60 % of the rents. Furthermore, the ratio of rental income to actual time spent working by landlords has made it possible to establish assumed wages, which are well above the average wage. This is an indication that letting accommodation is more about the extraction of rent than the remuneration of work.

Cet article propose une analyse empirique exploratoire de la contribution effective des propriétaires bailleurs à l'entretien des logements loués ainsi qu'une estimation de l'ampleur de la rente locative. Ce travail est réalisé en suivant les hypothèses des économistes classiques, selon lesquels la rente est équivalente à l'écart entre le prix et la valeur d'une marchandise, c'est-à-dire la quantité de travail nécessaire à sa production. Grâce à une analyse avec différentes périodes de recul, les frais d'entretien sont estimés à 10 % des loyers, ce qui est bien inférieur aux 40 % prévus dans le calcul du revenu cadastral qui est utilisé comme assiette fiscale pour la taxation des revenus locatifs. En fin de compte, pour les différents cas étudiés, la rente locative serait de l'ordre de 50 % à 60 % des loyers. De plus, les revenus locatifs rapportés au temps de travail effectif réalisé par les bailleurs auront permis d'établir des salaires fictifs, largement supérieurs au salaire moyen. Ceci indique que l'activité de mise en location de logement relève davantage de l'extraction d'une rente que de la rémunération d'un travail.

Dit artikel biedt enerzijds een verkennende empirische analyse van de werkelijke bijdrage van eigenaars-verhuurders aan het onderhoud van huurwoningen en anderzijds een raming van de

omvang van de rente. Hierbij werden de hypothesen van de klassieke economen gevolgd. Volgens hen zijn de rente gelijk aan het verschil tussen de prijs en de waarde van een goed, met andere woorden de hoeveelheid arbeid die nodig is om dit goed te produceren. Aan de hand van een analyse op basis van meerdere vergelijkingsperiodes worden de onderhoudskosten geraamd op 10 % van de huur. Dat is heel wat minder dan de voorziene 40 % bij de berekening van het kadastraal inkomen dat dient als grondslag voor de belasting op huurinkomsten. Voor de verschillende casestudy's bedroegen de rente uiteindelijk 50 % à 60 % van de huur. Bovendien worden fictieve lonen vastgesteld die ver boven het gemiddelde loon liggen, wanneer de huurinkomsten bekeken worden in verhouding tot de effectieve arbeidstijd van de eigenaars-verhuurders. Dit wijst erop dat het bij de verhuur van woningen meer gaat om het genereren van rente dan om het vergoeden van arbeid.

INDEX

Subjects: 4. santé – qualité de vie – inégalités sociales
Mots-clés: logement, marché immobilier
Trefwoorden huisvesting, vastgoedmarkt
Keywords: housing, real estate market

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