

Housing Cost Burden of Austrian Households: Results of a Recent Survey

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This article presents the results of a survey carried out in spring 2012 to determine the level of housing costs incurred by Austrian households. The housing cost survey shows that the share of housing costs borne by homeowners (loan repayment plus operating expenses and energy costs) accounts for 25% (median: 19%) of their net household income and is thus far lower than that borne by tenants (rent plus operating expenses and energy costs), which accounts for 34% (median: 29%) of tenants' income. The burden of housing costs is significant in the lowest income quartile, in particular (tenants: 51% of their net household income, homeowners: 44%). This study compares the results of this survey with those of a comparable survey that was carried out in 2008. The results show that the share of housing costs as a percentage of income increased by 2 to 6 percentage points during the previous four years. The second part of this article analyzes the vulnerability of households. About 6% of households (8% of tenants, 38% of the unemployed and 12% in the lowest income quartile) state that they were in arrears with rent payments or operating expenses in the previous 12 months on at least one occasion owing to financial constraints. Around one-third of tenants are obliged to restrict their consumption to cover their housing costs.

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Housing meets a basic need: individuals are dependent to a greater extent on this good than on other goods, which is why substitution is not possible. For most households, housing costs make up the largest category of consumption. In particular, low-income households spend a considerable portion of their income on covering their housing requirements. For these households, an increase in housing costs or a decline in income can mean that their own income can no longer cover their housing costs. Furthermore, households with outstanding loans issued to purchase housing can also be affected by an increase in the burden of housing costs since, despite often having a relatively high income, these households may no longer be able to meet their obligations on account of the loan they have taken out. The present article will also analyze this vulnerability of households vis-à-vis the burden of their living expenses on the basis of the survey data.

According to Statistics Austria, a total of 44% of Austrian households rented their main residence in 2011, with some 40% holding the lease as the main tenant, 1% holding a sublease and about 3% having another type of contractual arrangement. Owing to, among other factors, higher levels of uncertainty about the housing situation, the position of tenants has deteriorated in recent years. For instance, the share of fixed-term tenancy agreements in private housing has increased sharply. In 2004, 50% of newly concluded private tenancy agreements were for a fixed term. In 2010, by contrast, the share of these tenancy agreements had risen to 58%. For both cooperative and public housing apartments, however, the share of fixed-term tenancy agreements fell in this period from 14% to 9% and from 17% to 10%, respectively.² Overall, 38.6% (2004: 35.9%) of rental housing newly let as a main residence was for a fixed

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² Fixed-term tenancy agreements in cooperative and public housing are rare (they account for only about 16% of total fixed-term tenancy agreements) and the related number of cases is therefore small.

Table 1

Tenancy Agreements of Main Tenants

	Private			Overall		
	Built pre-1945	Built post-1945	Total	Built pre-1945	Built post-1945	Total
%						
Concluded in 2004 (as of 2005)						
Unlimited period	55.3	47.2	50.4	59.7	66.1	64.1
Fixed term	44.7	52.8	49.6	40.3	33.9	35.9
Concluded in 2010 (as of 2011)						
Unlimited period	52.7	34.8	41.8	58.3	62.5	61.4
Fixed term	47.3 ¹	65.2	58.2	41.7 ¹	37.5	38.6

Source: Tockner (2012).

¹ Small number of cases.

term (Tockner, 2012). In addition, the data shows that, for private rental housing, fixed-term tenancies are more expensive than tenancies for an unlimited period (in terms of the average costs per square meter, category A, i.e. highest standard).³

Unlike tenants, homeowners do not pay rent. However, homeowners are frequently indebted and are subject to interest rate fluctuations and, if they have taken out foreign currency loans, also to exchange rate risks. For homeowners with debt, the expenditure incurred to repay outstanding loans or to pay the loan interest should also be included in the burden of housing costs, in addition to the operating expenses and the energy costs. In Austria, housing purchases are settled with a relatively high share of equity. According to data compiled by the Eurosystem Finance and Consumption Survey (2010), some 36% of Austrian households hold debt, primarily by way of mortgage loans. 20% of indebted households hold debt in excess of EUR 67,000. Half of all indebted households have less than about EUR 14,000 of debt (Fessler et al., 2012). Even if no risk exists from a financial stability perspective, an analysis of the data at a disaggregated level shows that loan repayments account for a high percentage share of the disposable household income of lower-income households.

In view of both the sharp slump in subsidized new builds in recent years (owing, among other factors, to the discontinuation of ringfencing funds for homeownership assistance loans and to the rise in demand-side subsidies) and

the increase in housing prices, it appears expedient to highlight housing affordability to better estimate the vulnerability of households. The financial and economic crisis has very closely integrated the housing market with the real economy and the financial market. This is why the Oesterreichische Nationalbank (OeNB), in collaboration with the Institut für empirische Sozialforschung GmbH (Institute for Empirical Social Research – IFES), carried out a survey on housing costs in spring 2012.

This survey selected a representative sample of 2,156 households that were asked about their housing costs and how they pay these costs. Of these households, 1,933 were chosen for the analysis. For the selection of these households, see the annex. This study presents some descriptive analyses of these data and examines the extent to which housing costs are currently squeezing Austrian households and whether these costs have increased in

³ This is surprising insofar as for rental properties subject to the full implementation of the Austrian Tenancy Act, fixed-term tenancy agreements are typically granted a discount of 25%. One of the reasons for this is likely to be the benchmark system together with unclear rent ceilings owing to numerous additional payments (Tockner, 2012). An alternative explanation might be that fixed-term tenancy agreements include more recent rents that are closer to market rates whereas tenancy agreements for an unlimited period were concluded at a rent level that is excessively low compared with the current market situation.

recent years, leading to the restriction of other consumption.

The article first analyzes the burden of housing costs and the resulting differences between homeowners and tenants. Section 2 presents some analyses on financing housing purchases. Data on how households settle their housing costs, how they deal with a possible steeper increase in housing costs compared with a rise in income are presented in section 3. In addition, the results of a comparable survey from 2008 (Wagner, 2011) are used to analyze the growth in housing costs. Section 4 is devoted to households that have problems in settling their housing costs and that (are obliged to) respond by restricting their other consumption. Section 5 rounds off the analyses with some concluding remarks.

1 What Share of Income Do Tenants and Homeowners Spend on Housing?

The housing cost burden is defined below as the share of housing costs as a

percentage of net household income.⁴ The housing costs of tenants consist of rent inclusive of the operating expenses, those of homeowners of operating expenses and, for households with outstanding loans taken out to finance housing purchases, housing costs also include loan repayments.⁵ For both tenants and homeowners, energy costs (power, heating, hot water, oil, etc.) are added to these costs. For homeowners, furthermore, additional housing costs such as the consumption of fixed capital, maintenance costs, foregone interest, etc. and increases in the value of the housing should also be factored in. The different ways of measuring costs and the noninclusion of some factors should be taken into account when interpreting the results, particularly for comparisons between homeowners and tenants, as comparability is limited in this case.

The analyses show that the housing cost burden decreases in proportion to income for both homeowners and tenants (table 2). Tenants in the first income quartile use 51% (median: 42%) of their net household income for settling housing costs while for homeowners in this income quartile, housing costs are far lower at 44% (median: 28%). In this respect, it should be borne in mind that the share of homeowners in the first income quartile is relatively small (37%).

The share of homeowners increases in proportion to the level of income. In the fourth income quartile, about two-thirds of households are owner-occupiers. The major difference between the

Table 2

Housing Cost Burden in 2012

	Tenants			Homeowners		
	Mean	Standard error	Median	Mean	Standard error	Median
	<i>% of household net income</i>					
1 st quartile	51.3	(3.4)	41.5	43.6	(7.4)	28.2
2 nd quartile	32.1	(0.9)	30.5	28.9	(2.1)	21.8
3 rd quartile	26.1	(0.7)	25.1	22.9	(1.2)	18.6
4 th quartile	19.0	(0.7)	17.1	16.3	(0.8)	13.4
All households	34.0	(1.2)	29.1	24.9	(1.3)	19.0

Source: OeNB Housing Cost Survey 2012.

⁴ The imputation of household income is described in the annex. Data on housing cost levels are not available for a total of 356 households. For these households, therefore, the housing cost burden cannot be calculated. It made little sense to impute housing costs, as sufficient data on the housing situation are unavailable.

⁵ The survey defines loan repayment as the payment of both the principal and the interest, with only interest payments constituting true costs, however. The homeowner's burden might be overestimated depending on the perspective considered. However, opportunity costs (notional rent) as well as amortization and/or renovation, i.e. changes in housing value, are not included.

Table 3

Form of Housing

	Share %	Standard error
Tenants	47.3	(1.3)
Homeowners	52.7	(1.3)
Tenants		
1 st quartile	62.8	(3.1)
2 nd quartile	51.1	(3.0)
3 rd quartile	45.2	(2.8)
4 th quartile	33.3	(2.4)
Homeowners		
1 st quartile	37.2	(3.1)
2 nd quartile	48.9	(3.0)
3 rd quartile	54.8	(2.8)
4 th quartile	66.7	(2.4)

Source: OeNB Housing Cost Survey 2012.

median and the mean of the housing cost burden in the first income quartile is, among other things, attributable to the fact that a higher-than-average share of these households do not settle their housing costs exclusively from their own income but receive rent subsidies, for instance (section 4). Since the current survey did not record the level of these subsidies, a housing cost burden of more than 100% can result when measured against income. This may also be the case if the income at the time of the survey was particularly low in the short term and was less than the housing costs.

An analysis of the housing cost burden of households that fully bear their housing costs themselves reveals consistently similar results apart from slight changes in the first income quartile (mean burden of tenants in the first quartile: 49%).

Median and mean values diverge less sharply in the second income quartile. Tenants in this quartile spend around one-third of their income on housing costs. In both upper quartiles, the housing costs of tenants are no higher than around 25% of income and, for homeowners in the topmost quartile, the housing costs amount to 16% (median: 13%) of income.

An analysis of homeowners shows clear differences depending on whether loans for the purpose of financing housing purchases were outstanding. For homeowners in the first income quartile who still have an outstanding loan to repay, the average housing cost burden amounts to 92% (median: 87%) of household income. This heavy burden is explicable by the fact that younger homeowners whose income is still low at this stage and who are more likely to have outstanding loans are found in this quartile.

The housing cost burden of tenants is higher than that of homeowners across every income quartile. This phe-

Table 4

Housing Cost Burden in 2012

	Homeowners without loans			Homeowners with outstanding loans		
	Mean	Standard error	Median	Mean	Standard error	Median
% of household net income						
1 st quartile	33.4	(4.0)	27.9	92.2	(7.5)	86.9
2 nd quartile	22.6	(1.9)	20.6	54.9	(5.1)	48.1
3 rd quartile	17.6	(1.4)	16.4	35.2	(2.1)	31.5
4 th quartile	9.9	(0.7)	9.6	24.7	(1.4)	23.5
Total	19.2	(1.1)	17.2	38.3	(2.1)	30.4

Source: OeNB Housing Cost Survey 2012.

nomenon is also based on the fact that about two-thirds of homeowners in this survey do not have outstanding loans (anymore). The average burden of housing costs for homeowners who still have credit obligations, however, is around 38% and thus exceeds the average housing cost burden of tenants.

2 Financing Housing Purchases

The housing costs of homeowners are critically determined by the form of financing selected. In credit financing, interest is usually incurred as an additional cost. However, funds for loan repayments, which represent merely a shift in wealth, also have to be raised. The data on the financing of housing purchases, which were included in this survey, are therefore presented below.

Multiple answers were admissible to the question on the financing of housing purchases. Equity (e.g. household savings) contributed to the purchase of housing for around 80% of households. For about one-third of households, equity was made available via gifts or inheritances.⁶ In addition to equity, some 68% of owner-occupiers tapped debt financing (loans, homeownership assistance loans, other debt finance),

with debt financing increasing in importance as the level of income rises (survey data also confirm that higher-income households are more likely to have a loan approved).

More than half (about 55%) of all homeowners who have taken out a loan to finance housing purchases have a building loan,⁷ 35% have a euro-denominated bank loan. About 11% opt for a foreign currency loan, and an equally high share selects a loan from another institution (e.g. a salary advance, a loan from a private financial intermediary). About 50% of households that have taken out a home purchase loan have already repaid the loan.⁸ Overall, some 18% of households in the underlying sample and some 35% of borrowers therefore have an outstanding loan, according to the survey. A comparison of the mix of finance for financing housing purchases with the mix for outstanding loans reveals a somewhat higher share of foreign currency loans and the lesser importance of loans granted by a building and loan associa-

Table 5

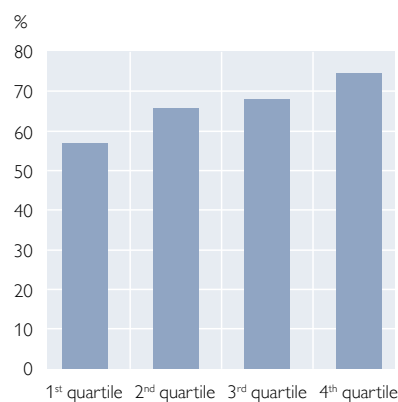
Forms of Financing for Housing Purchases

	Average %	Standard error
Equity, savings	78.9	(1.7)
Loans: banks, other credit institutions, other institutions	53.7	(2.0)
Home ownership assistance loans	35.7	(1.9)
Other debt financing (salary advances, loans from friends)	1.4	(0.4)
Gifted amounts, inheritances	33.7	(1.8)
No information provided	4.2	(0.9)

Source: OeNB Housing Cost Survey 2012.

Chart 1

Share of Owner Households with Debt Financing by Income Quartiles



Source: OeNB Housing Cost Survey 2012.

⁶ For information about the role of inheritances in the ownership of real estate in Austria, see Fessler et al. (2010).

⁷ Loan from another type of credit institution (e.g. loan granted by a building and loan association).

⁸ Data on other forms of debt financing are not available.

Table 6

Loan Financing of Housing Purchases

	Financing via			
	loans taken out		still outstanding loans	
	Share	Standard error	Share	Standard error
Euro bank loans	35.4	(2.5)	37.1	(3.2)
Foreign-currency bank loans	11.5	(1.7)	14.8	(2.3)
Other credit instruments (e. g. loans granted by a building and loan association)	54.6	(2.6)	41.3	(3.3)
Other institutions	11.6	(1.6)	8.9	(1.8)

Source: OeNB Housing Cost Survey 2012.

tion. About 7% of the outstanding loans are bullet loans. The most common forms of funding loan repayments are life insurance policies and mutual funds.⁹

3 Payment of Housing Costs

As expected, almost all households use their current income to pay their hous-

ing costs. About 5% of owner households and 7% of tenant households also use savings and rent subsidies, respectively, to (partly) pay their housing costs. For a closer analysis of the recipients of subsidies, see section 4.

The responses to the question of whether households would be able to settle their housing costs with just a single income provide information about potential problems in settling housing costs.¹⁰ If only a single income covers the housing costs, but a household receives more than one income, this household runs less of a risk of running into difficulty in the event of a fall in income.

About 87% of households would be able to settle their monthly housing costs with just a single income. In this regard, hardly any differences exist between tenants and homeowners. For owner households with outstanding loans, this figure is 81%. In other words, a loss of income (e.g. through unemployment) could give rise to loan repayment problems for 19% of owner households with outstanding loans.

Table 7
Funding of Housing Costs

	Share	Standard error
	%	
Income	99.2	(0.2)
Tenants	99.4	(0.2)
Homeowners	99.1	(0.3)
Savings	3.3	(0.5)
Tenants	1.3	(0.4)
Homeowners	5.0	(0.9)
Rental subsidy/ housing benefit	3.7	(0.4)
Tenants	6.7	(0.8)
Homeowners	1.0	(0.3)
Other	1.1	(0.3)
Tenants	0.8	(0.2)
Homeowners	1.3	(0.6)
Data unavailable	0.5	(0.1)
Tenants	0.4	(0.2)
Homeowners	0.5	(0.2)

Source: OeNB Housing Cost Survey 2012.

⁹ Owing to the small number of cases, this information is subject to a high degree of uncertainty.

¹⁰ Some 47% of households in the survey are single-income households. For these households, the question is "Could you cover your housing costs solely with your own income?" Not all these households can pay their monthly housing costs with their single income because some of these households pay only part of their housing costs themselves, some do not pay their housing costs solely from their income (part is covered e.g. by housing benefits/rent subsidies) or are in arrears with housing cost payments.

Table 8

Payment of Monthly Housing Costs Possible with a Single Income

	%	
All households	86.8	(0.9)
of which number of incomes in the household		
one person	92.3	(0.9)
two persons	82.5	(1.4)
three or more persons	82.7	(3.4)
Tenants	86.9	(1.1)
Homeowners	86.7	(1.3)
of which those with outstanding loans	80.9	(2.6)
of which number of incomes in the household		
one income	93.6	(3.3)
more than one income	77.1	(3.2)

Source: OeNB Housing Cost Survey 2012.

3.1 Change in Housing Costs

According to the residential property price index published by the OeNB in collaboration with the Institute for Urban and Regional Research (SRF) at the Vienna University of Technology (Institut für Stadt- und Regionalforschung der TU Wien), housing prices and rents have been rising relatively sharply for some years – especially in Vienna. In the housing cost survey, households were asked about the rise in housing costs in the previous three years. For the sake of comparison: according to the residential property price index, housing prices rose by 39% in Vienna and by 19% in the Austrian provinces from the first quarter of 2009 to the second quarter of 2012 (when the survey on housing costs was carried out). For private tenants, the rental price index shows an increase of 11% in this period (moreover, the CPI shows a 17% rise in rents including operating expenses in the same period). The present survey makes it possible to

Table 9

Housing Cost Burden in 2008

	Tenants	Homeowners
Mean		Mean
% of household net income		
1 st quartile	51.7	40.1
2 nd quartile	28.2	20.0
3 rd quartile	20.7	14.3
4 th quartile	13.0	8.5
Total	31.2	18.8

Source: OeNB Household Survey on Housing Wealth 2008, Wagner (2011).

analyze the increase in housing costs in two ways: first, by comparing this survey data with the corresponding data from the Household Survey on Housing Wealth 2008 and second, by using respondents' answers to questions about housing cost developments in the survey.

A comparison of the housing cost burden (table 2) with the 2008 survey data¹¹ (table 9), reveals that the average housing cost burden of tenants increased consistently by 2 to 6 percentage points, with clear differences between the income quartiles.

In the housing cost survey, some 62% of households stated that their housing costs had increased. 9% of households even recorded a steep rise, which is understood to mean an increase in housing costs well exceeding income growth. The percentage share of homeowners who registered such a rise is higher than that of tenants. However, for homeowners without outstanding loans, the rise in housing costs concerns only operating expenses, whereas for tenants, the increase in housing costs relates to rent including

¹¹ Uncertainties should be factored in when comparing the results of the 2008 and 2012 surveys (both within the surveys and between the surveys).

Table 10

Increase in Housing Costs

	Total	Tenants	Home-owners	1 st quartile	2 nd quartile	3 rd quartile	4 th quartile
	%						
Decreased	0.7 (0.6)	1.0 (0.4)	0.4 (0.3)	1.5 (0.8)	0.6 (0.5)	0.4 (0.3)	0.3 (0.2)
Roughly stayed the same	37.1 (1.3)	39.7 (1.7)	34.7 (1.9)	34.2 (2.8)	39.1 (3.1)	38.6 (2.7)	36.4 (2.6)
Increased somewhat	52.9 (1.3)	50.3 (1.7)	55.2 (2.0)	51.4 (2.9)	50.6 (3.1)	52.8 (2.8)	56.0 (2.6)
Increased steeply	9.4 (0.8)	9.1 (1.0)	9.7 (1.3)	12.9 (1.9)	9.7 (2.1)	8.2 (1.7)	7.3 (1.5)

Source: OeNB Housing Cost Survey 2012.

Note: Standard error in parentheses.

Table 11

Measures to Pay for More Expensive Housing

	Share	Standard error
	%	
Already taken		
Use of increased income	35.5	(1.6)
Use of a larger share of income	47.8	(1.7)
Borrowing/restructuring loans	0.6	(0.2)
Use of wealth (inheritances/savings)	4.2	(0.6)
Borrowing money	2.3	(0.5)
Moving house	1.4	(0.4)
Restricting consumption	27.0	(1.5)
Other	3.1	(0.6)
No information provided	3.6	(0.6)
May be required		
Higher income	35.1	(1.3)
Borrowing/restructuring loans	0.8	(0.3)
Wealth (inheritances/savings)	3.5	(0.5)
Rent subsidies/housing benefits	2.8	(0.4)
Borrowing money	1.6	(0.3)
Moving house	2.7	(0.4)
Restricting consumption	13.0	(0.9)
None of the above	53.8	(1.3)

Source: OeNB Housing Cost Survey 2012.

operating expenses and thus usually to a higher amount.¹²

Households whose housing costs went up more steeply than incomes reacted to this development primarily

by using a larger share of income for housing and by reducing other consumption. Only a handful of households took out a loan or restructured an outstanding loan to pay for more expensive housing; furthermore, 1.4% of households stated in the survey that they had sought to take out a loan for this purpose but had not received one. 1.4% households had to move, as housing costs were too high.

When asked about planned measures, a large share of respondents (35%) stated that they would have to earmark a larger share of income to fund housing costs in the short term, and 2.7% of households thought it necessary to move to other housing. To settle their increased housing costs, 1.6% of households sought to borrow money from their partner or family.

4 Problems in Paying for Housing

Low-income households, in particular, face a high housing cost burden (section 2). Some of these households are not able to pay for their housing from their current income and depend on financial support (e.g. rent subsidies)

¹² No conjectures can be made about whether the increase in housing costs for homeowners with outstanding loans is attributable to higher operating expenses alone or whether interest rate rises or increases in loan payments should also be considered, as respondents were asked only about the overall change in housing costs. Since, however, interest rates fell in the period under review, interest rate increases can be excluded.

Table 12

Payment Arrears: Rent or Operating Expenses

	Share	Standard error
	%	
Yes	5.8	(0.6)
Tenants	7.6	(0.9)
Homeowners	4.0	(0.9)
Outstanding loans	5.1	(1.6)
By income quartiles		
1	11.6	(1.7)
2	5.1	(1.2)
3	4.3	(1.2)
4	2.4	(0.9)
By employment status		
Fully employed	4.8	(0.8)
Partly employed	12.6	(3.9)
Student	4.1	(4.1)
Unemployed	37.9	(6.1)
Retired	3.2	(0.9)

Source: OeNB Housing Cost Survey 2012.

Note: small number of cases for partly employed, student, unemployed.

instead or are in arrears with rent payments (or other financial obligations related to housing). Other households also risk failing to fund their housing costs if their income declines (e.g. owing to unemployment).

About 6% of households stated that they had been in arrears with rent payments or the operating expenses on at least one occasion owing to financial constraints in the previous 12 months. As expected, this share is higher than average for low-income households. In a breakdown by employment categories, in particular households whose principal breadwinner is unemployed are affected. In the event of unforeseen unemployment, housing costs may not be immediately adjustable to the lower

Table 13

Rent Subsidies and Housing Benefits

	Share	Standard error
	%	
All households	3.7	(0.4)
Tenants	6.7	(0.8)
Homeowners	1.0	(0.3)
By income quartiles		
1	10.1	(1.5)
2	2.7	(0.9)
3	1.8	(0.6)
4	1.0	(0.5)
By employment status		
Fully employed	2.2	(0.4)
Partly employed	15.0	(4.2)
Student	25.2	(16.6)
Unemployed	30.3	(5.6)
Retired	2.1	(0.6)

Source: OeNB Housing Cost Survey 2012.

income, or such an adjustment may not be feasible owing to the household's or the local housing market's housing requirements. In the event of short-term unemployment, furthermore, it may be neither financially feasible nor would it make sense to move, given the high costs involved.

In Austria, EUR 255 million were granted in subsidies for the building and renovation of housing in 2010.¹³ In addition, EUR 143 million were allocated as general housing benefits in the same year.¹⁴ It is worth taking a closer look here at which households receive these subsidies and the extent to which the latter are an essential component for these households in paying for their housing. 15% of tenant households in the lowest income quartile receive rent benefits or housing benefits.

¹³ More up-to-date data were not available at the time this study was prepared.

¹⁴ In addition to the federal rent subsidies granted if rents increase as per the decision of the arbitration board following renovation work and the stipulation of a new rent price, various regional housing benefits (depending on the provisions of the respective province) also exist. Housing benefits are a subsidy granted to cover housing costs and are intended to support persons on a low income. Housing benefits are paid for housing whose construction or whose renovation was subsidized and for nonsubsidized (private) residential rental housing. Under certain conditions, owners of condominiums are also eligible for housing benefits.

Table 14

Restriction of Consumption to Pay for Housing

	Tenants		Homeowners	
	Mean	Standard error	Mean	Standard error
%				
2011				
1 st income quartile	43.9	(3.0)	37.8	(5.1)
2 nd income quartile	27.5	(3.1)	20.7	(3.7)
3 rd income quartile	26.3	(3.1)	16.8	(3.0)
4 th income quartile	11.9	(2.7)	15.4	(2.5)
Total	30.9	(1.4)	18.8	(1.4)
2008				
1 st income quartile	41.7	(1.3)	33.8	(1.5)
2 nd income quartile	31.4	(1.3)	28.4	(1.3)
3 rd income quartile	26.4	(1.3)	29.8	(1.1)
4 th income quartile	21.0	(1.3)	20.9	(1.0)
Total	31.4	(0.6)	27.5	(0.6)

Source: OeNB Housing Cost Survey 2012, OeNB Household Survey on Housing Wealth 2008.

30% of rent subsidy recipients are unemployed. Even if this figure covers only a small number of cases, the value does highlight the importance of the subsidies' cushioning effect for low-income households. Nevertheless, 24% of recipients of rent subsidies or housing benefits were in arrears with paying their housing costs on at least one occasion in the previous 12 months.

The question about the need to restrict other household consumption to pay for housing was answered in the affirmative by one-third of tenants (44% in the first income quartile) and 38% of homeowners in the lowest income quartile. Compared with the 2008 survey, the shares of households that restricted consumption in the first two income quartiles decreased overall (from 73% to 71% for tenants and from 62% to 59% for homeowners). Housing costs rose within the first income quartile, indicating increased vulnerability (given that housing for these households is a basic need and not a question of preferences, which play a greater role for higher income households).

As described above, around 68% of owner-occupiers tapped debt financing (loans, government housing loans, other debt finance), with debt financing increasing in importance in tandem with the level of income. As table 12 shows, 5% of households with outstanding loans were in arrears with paying their operating expenses on at least one occasion in the previous 12 months. Although data on arrears are currently not available for loan servicing, these households can also be expected to tend to have problems. For 19% of households with outstanding debt, a single income is not sufficient to

cover the burden of housing costs. In the event of a loss of income (e.g. through unemployment), these households could have problems repaying their loans.¹⁵

5 Final Remarks and Conclusions

Housing costs usually make up the largest category of household consumption. (Potential) problems in paying for housing are relevant from a sociopolitical perspective, as housing constitutes a basic need. In addition, they are significant from a financial policy perspective, as indebted owner households might fail to meet their credit obligations.

This article has analyzed data compiled by a survey commissioned in spring 2012 to ascertain the housing costs of Austrian households. The vulnerability of households owing to increased housing costs was analyzed, as well as whether these households took measures to cope with the increased costs (such as restructuring, bank loans and/or borrowing from

¹⁵ See Albacete and Fessler (2010) for analysis of households' ability to repay loans; for foreign currency loans, see Albacete et al. (2012).

the private/noninstitutional sector, etc.).

Housing costs rose by 2 to 6 percentage points from 2008 to 2012 and now account for 25% of income (median: 19%) for homeowners and 34% (median: 29%) for tenants. The housing cost burden is especially large in the lowest income quartile (51% of income for tenants, 44% for homeowners). Nevertheless, one-third of tenants cannot pay for their housing without restricting household consumption. The increase in housing costs is attributable not only to the rise in rents; in recent years, rate increases for utilities – sewer services, power, gas and garbage collection – were also a key factor for the surge in operating expenses, thereby contributing to the growth in the housing costs of Austrian households. However, the burden of interest payments on homeowners with (frequently variable rate) outstanding loans has decreased in recent years (the interest rate for residential construction loans with a maturity of more than five years fell from 5.6% in January 2008 to 2.9% in July 2012).

Owing to the singular importance of housing, it is not possible to allow the housing market to be subject to supply and demand effects alone. Instead, both economic policy measures and structural measures are required. Since housing covers a basic need, it is appropriate to conduct close and continuous monitoring of cost performance. In addition, improved statistics on the trend in both rents and housing prices and regular surveys with quickly available results are required to analyze the housing cost burden in a breakdown by socioeconomic characteristics and to identify vulnerable households.

Annex

Imputation of Income

The imputation of income is based on the question relating to the monthly net income of households, which the latter specified in 23 categories. Of the 2,156 households in the sample, 606 (28.1%) did not provide any data on income. The missing household income was imputed using the Stata program package for multiple imputations. Ordered logistic regressions (ordered logit) were factored in with the number of recipients of income in the household,¹⁶ data on the employment status of the target person, i.e. the person who contributes most to the household income (full-time or part-time employees, pensioners, students, household workers, civil servants, entrepreneurs, workers, managers), as well as age, age squared, gender, education and marital status. At a household level, the form of housing (private rental property as the main tenant, public housing, cooperative housing, a condominium or privately owned house, other), the holding of securities and equity investments are also included in the ordered logit. Furthermore, interaction terms take into account the combined influence of age, gender and a full-time position. The number of imputations is 20.

Size of the Sample

Since the aim of this study is to analyze the burden of households by way of their housing costs in relation to their household income, the analyses did not include households that do not pay their housing costs themselves. The latter number 223 households in the sample, the housing costs of which are assumed e.g. by relatives or employers or which for other reasons do not bear their

¹⁶ Missing data relating to the number of recipients of income were imputed using other data (number of persons aged 15+, etc.).

housing costs themselves. After excluding these observations, the size of the sample amounts to 1,933 households. 52 of these households do not bear their housing costs to the full extent, with most (40 households) being supported by family, relatives and friends. Unlike

households that do not pay for their housing costs at all, the former households which meet (at least) part of their housing costs are able to provide information on the total amount of their housing costs.

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