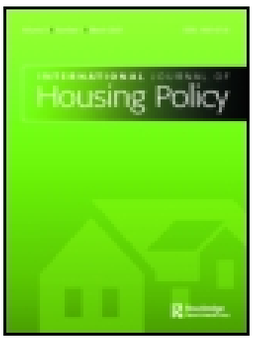

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Alexis Mundt

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Housing benefits and minimum income schemes in Austria – an application of the residual income approach to housing affordability of welfare recipients

Alexis Mundt

IIBW – Institute for Real Estate, Construction and Housing Ltd., Vienna, Austria

Recently, housing costs have increased considerably in and around the main Austrian cities. For low-income households and vulnerable groups on the housing market, the nine Austrian regions have set up *housing benefit* schemes as income-dependent monetary transfers to cover housing costs, and, for destitute households, *minimum income* schemes as a subsidiary safety net of last resort. As the schemes are designed and interact very differently across the regions, it is unclear whether low-income households are protected sufficiently by them to meet housing costs. This contribution applies a comprehensive residual income approach to housing affordability in order to identify market segments and household types where affordability is at risk. This is done by calculating overall benefit levels across four different household types and four different income levels in the nine Austrian regions, and comparing these with typical regional housing costs. Desk research is complemented with 26 qualitative interviews with policy practitioners to scrutinise and discuss the results. We find that especially in and around the capital city, Vienna, and some other main Austrian cities, overall benefits do not cover common housing costs, resulting in insufficient funds for necessary non-housing expenses. Policy recommendations are discussed in an international context.

Keywords: housing affordability; residual income approach; housing benefits; minimum income schemes; housing costs; Austria

Introduction

The Global Financial Crisis has put stress on the Austrian economy, albeit to a lesser degree and at a later stage than in other European countries. Negative repercussions were counter-balanced during the first years of the crisis by government interventions, but the economy is currently still growing very slowly and unemployment has increased substantially (OECD, 2015). Unexpectedly, this development has not been reflected by stagnating housing costs; rather, these have increased significantly in the last few years. This is mainly due to a reallocation of savings into

Email: mundt@iibw.at

owner-occupied and investment apartments, and a general disequilibrium between supply and demand in the rental sector in the main urban centres (Mundt & Springler, 2016). Urbanisation and strong immigration have reinforced this tendency.

As a result, rental housing costs have increased considerably in and around some major Austrian cities in the last few years while stagnating incomes and a poor economic environment have contributed to deteriorating housing affordability for low and middle-income earners (Schoibl & Stöger, 2014). State transfers are playing an ever larger role in counterbalancing unequal market incomes (Guger, 2009). Furthermore, the number of destitute households, i.e., households with no or very little independent income and no savings, has increased. In part this is due to a larger number of people granted asylum in Austria recently (Hadler, 2016). As a result of these factors, more and more households depend on state support to cover housing costs and daily expenses.

In Austria, the issue of housing affordability has primarily been addressed by the establishment of a large social rental housing stock that is provided mainly by the municipality of Vienna and limited-profit housing associations (LPHAs) (Deutsch & Lawson, 2012; Mundt & Amann, 2010). Mirroring an international development (Griggs & Kemp, 2012; Kemp, 2007c), Austria has lately also seen a shift towards demand-side housing cost assistance in the form of income-dependent and means-tested housing benefits (internationally also called *housing allowances*). Such benefits are intended to 'keep housing of a reasonable standard affordable' and 'enable low-income households to consume more housing than their incomes would normally permit' (Turner & Elsinga, 2005, p. 103). The nine Austrian regional administrations are responsible for housing subsidisation and have introduced tailored programmes. These *housing benefit* (HB) schemes differ strongly in scope and design across the nine Austrian regions. It is also the regional governments that are responsible for setting up and financing the second tier in the Austrian social protection framework, i.e., the *minimum income* (MI) schemes that guarantee a subsistence level of income for destitute households. Within these MI schemes, necessary daily expenses for food and other items as well as housing costs are covered, yet again with strong regional differences. Both schemes, HBs and MI, are designed and interact very differently, and it is unclear if low-income households are protected sufficiently, by each scheme individually or both schemes in combination, in order to meet typical housing costs. This contribution addresses these issues. By looking at the way regional housing-related benefit schemes are applied in practice, it identifies market segments and household types where affordability of housing is at risk in spite of such benefits.

International experience has shown that an adequate way to carry out such an investigation is a *residual income approach to housing affordability* (Haffner & Boumeester, 2014; Hulchanski, 1995; Kutty, 2005; Stephens, 2005; Stone, 2006; Stone, Burke, & Ralston, 2011). Other widely used approaches to housing affordability, particularly in the United States (US) and the United Kingdom (UK), have

favoured the housing-cost-to-income-ratio, where a certain percentage share of incomes attributed to housing costs, say 25%–30%, functions as a threshold value above which housing costs are defined as unaffordable (discussed in Bramley, 2012; Hulchanski, 1995). However, for welfare recipients and households with very low incomes, it is more relevant to examine what income they are left with after making use of all available benefits and paying for their housing (residual income (RI)), rather than looking at their housing-costs-to-income-ratios, which, in most cases, will clearly surpass the threshold.

In this contribution, we apply a comprehensive RI approach to housing affordability to identify market segments and household types in the Austrian regions where affordability of housing is at risk in spite of available subsidies. This is done by calculating overall benefits (HBs and/or MI) across four different household types and four different income levels in the nine Austrian regions, and comparing these to typical regional housing costs. We thus investigate whether the benefit schemes meet their objectives to safeguard the affordability of housing, and whether RIs suffice to meet necessary daily expenses for non-housing items.

HB schemes are embedded in a wider welfare state structure and interact with other subsidies and policy arrangements, such as minimum income schemes. A broader perspective on the interaction of singular policy instruments is increasingly adopted in comparative policy research, and proves to be a clear advantage also for the Austrian case. Looking at an array of welfare states, the interaction of housing allowances and social assistance (or minimum income) schemes can take three different forms (Griggs & Kemp, 2012; Kemp, 2007b). First, housing expenses can be covered mainly within social assistance payments and housing allowances may cover higher additional housing costs. Kemp (2007b, p. 2) names Australia, New Zealand, and the Netherlands as example countries, according to empirical analyses based on data from the 1990s. Second, social assistance payments can be enhanced to take into account recipients' full housing expenditure (usually to a maximum), for example in Canada, Germany, and Sweden. Third, housing allowances and social assistance may be treated as independent schemes, and housing costs are then not covered by social assistance payments. Only the United Kingdom seemed to follow this third approach, hence this housing allowance scheme has a much wider coverage than in other countries (Stephens, 2005). As Kemp's classification of countries was based on data from the early 1990s, it might since have changed for specific countries. Yet, the three possible forms of interaction are still an adequate way to differentiate approaches. So far, cross-country comparisons of housing allowance and benefit systems have not included Austria (Griggs & Kemp, 2012; Haffner & Boelhouwer, 2006; Kemp, 2007a; Lux, 2003; Turner & Elsinga, 2005). This contribution therefore analyses the Austrian system in reference to previous comparative work and addresses the question of how social assistance and housing allowances in Austria work together, and which of the three proposed forms Austria follows.

While the focus of this paper is on affordability, we also connect our findings to international experience and current questions regarding the design efficiency of housing benefit schemes (Haffner & Boelhouwer, 2006; Kemp, 2007a; Turner & Elsinga, 2005.). A demand-side housing benefit scheme must maintain a balance between effectively safeguarding housing affordability of needy households and at the same time not overburdening the public purse and making efficient use of state resources (Turner & Elsinga, 2005). Investigations into economic inefficiencies of housing benefit schemes have strongly focused on possible over consumption of housing through excessive benefit levels (Enström Öst, 2014; Walker & Niner, 2012), possible work disincentives and links to a dependency culture (Chen, 2006; Nordvik & Åhrén, 2005), and on induced rental price increases (Fack, 2006; Kangasharju, 2010; Susin, 2002). This study will not replicate such, mostly household panel-data based, investigations but will discuss their implications and caveats for benefit design in the Austrian context.

This research is concerned with contributing to improvements in public service provision, in Austria and possibly other countries. Our findings can be used by regional governments to reconsider and adapt their HB and/or MI schemes in order to safeguard housing affordability and, more generally, to ensure an efficient benefit design in the future.

This paper is organised as follows: After this introduction, we give a short overview of rental housing costs in Austria and then describe the two relevant housing-related benefit programmes and their structure in more detail, first the HB schemes, then housing cost coverage in the MI schemes. In the 'Methods and data' section we provide the background on the RI approach we apply and on the way we combined desk research with 26 qualitative interviews. The core of this contribution is the household affordability calculations of the 'Household calculations' section. In the subsequent section, the results of the empirical analysis are discussed in reference to the international experience on efficient benefit design. From this discussion we draw some recommendations addressed at policy practitioners and end this contribution with a summary of our conclusions.

Regional variation of rental housing costs in Austria

This investigation concentrates on rental housing as low and very low-income households are much more likely to reside in rental accommodation as opposed to owning their own homes, or other forms of tenure (Statistik Austria, 2015). Austria is divided into nine regions, or 'Länder'. The share of rental housing is particularly high in the Austrian capital, Vienna, which is itself a region. The high share of subsidised rental housing in the form of municipal and limited-profit, cost-rent apartments has contributed to a comparatively low overall rent level there (6.92 €/m^2 per month) (see Figure 1). Average rents are much higher in the western regions of the country, especially Salzburg (S), Vorarlberg (VO), and Tyrol (T), where housing

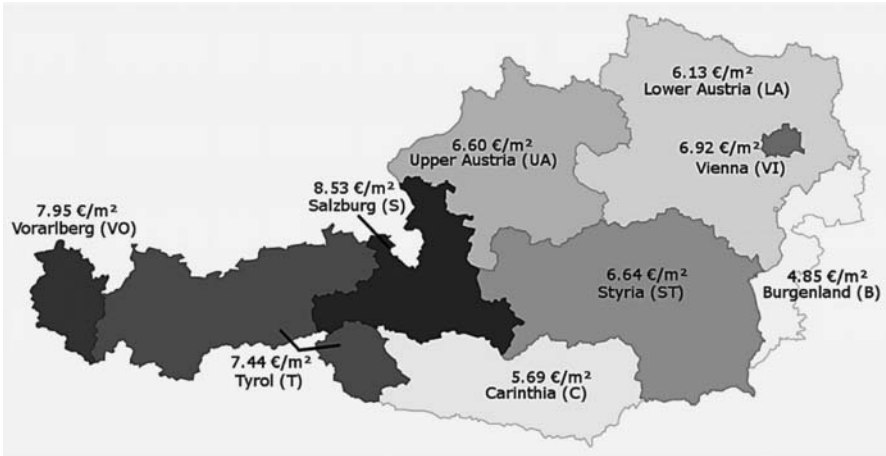

Figure 1. Average monthly gross rental housing costs (in €/m^2) by region, 2013.
Source: Microcensus 2013, see: Statistik Austria (2014); own depiction. Included are rents and overhead building charges, but no energy expenses. The darker the colouring, the higher the housing cost averages.

supply is often limited due to topographical constraints (Mundt, 2013), but also rental markets are much smaller and rely more strongly on the private rental sector.

During the early 2000s, rent levels in Austria increased more or less in line with overall inflation (see Figure 2), contrary to many other EU countries that experienced a price boom during that period. Since 2005, however, housing demand has clearly outstripped supply. As a consequence, rent levels have risen strongly, especially in some regional capitals.

The following points summarise the most important recent findings on housing affordability in Austria (see also Amann & Mundt, 2014; Beer & Wagner, 2012; Kunnert & Baumgartner, 2012; Schoibl & Stöger, 2014):

- In an international comparison, housing costs as percentage of household incomes are still very low in Austria, and housing affordability following this ratio approach is comparatively high. Looking at EU-SILC comparisons of housing-cost-overburden-rates across Europe, Austria ranks in the lowest fifth of countries (Pittini, 2012; Eurostat). Relatively low average rents across the whole stock are the main reason for this positive outcome.
- Nevertheless, it is the norm that households at risk of poverty (have to) spend a relatively higher share of income on rents. According to national inclusion indicators, housing-cost-overburden-rates have increased slowly but continuously since 2005. While other housing indicators, such as overcrowding,

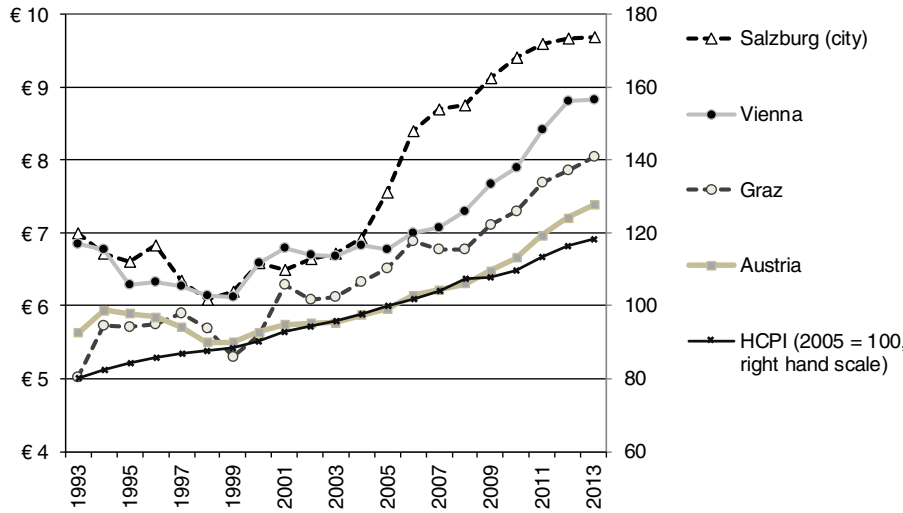

Figure 2. Development of market rents in Austria 1993–2013 (net rents excluding taxes and overhead building charges).
Source: WKO yearly data on market rents, see WKO (2014); Statistik Austria on HCPI (harmonised consumer price index), own calculation and depiction.

have improved over the same period, the percentage of the population that spends more than 25% of income on housing has increased from 15% to 18% (Mundt & Amann, 2015, p. 29).

- Housing cost dynamics are particularly strong in regional capitals, most notably in Salzburg, Innsbruck, Vienna, and Graz. At the same time, low-income households and MI recipients are strongly concentrated in urban centres, and migration to Vienna is especially pronounced.
- The insider-outsider problem on the housing market is aggravated because long-standing rental contracts have much lower rent levels than current market rents. New households, young families, migrants, and other particularly vulnerable groups face much higher housing costs than those households who benefit from long-standing contracts or limited-profit, cost-rent housing.
- For these reasons there is a clear hierarchy of rent levels. Rents in the social rental housing stock range below private market rents: 5.8 €/m^2 gross average rent for the municipal housing stock; 6.0 €/m^2 for the LPHAs; 7.8 €/m^2 for the private rental stock (Statistik Austria, 2014). Market rents are higher than stock rents and range across the nine regions from 7.7 €/m^2 in Burgenland to 12.2 €/m^2 in Vienna. Market rents are highest in the regional capitals Innsbruck (13.5 €/m^2) and Salzburg (12.7 €/m^2) (according to WKO, 2014; with estimates for taxes and overhead building charges based on the microcensus

2013, Statistik Austria, 2014). Overhead building charges are running costs for the building (e.g., water supply, waste disposal, electricity in common building parts, sewage, lift and others). These charges are divided between all dwellings of a building and included in gross rents.

- Poorer quality but affordable apartments have disappeared almost completely during the past few decades due to widespread renovations and consolidation of small units. This has led to welcome quality improvements but reduced viable housing alternatives for low-income households. Also, subsidised rental housing completions in some regions between 2009 and 2012 were below long-term averages and did not cover demand, especially in Vienna and Lower Austria (IIBW et al., 2014).

These developments on the housing market have contributed to a higher demand for housing cost-related benefits by low-income groups. Simultaneously, dependence on benefits has increased due to a deteriorating economic situation, a considerable increase in unemployment and stagnating or decreasing incomes for low-income earners (OECD, 2013, p. 61; OECD, 2015, p. 17). There is an overall trend towards more part-time jobs and precarious forms of employment, and towards more vulnerable household types, for example single-parent households or low-income early retirees. In recent years, there has also been a strong influx of refugees and asylum seekers who initially often depend on state support before they are positively integrated in the labour market.

Austrian benefit schemes to cover housing costs

Austria spends around 28%–31% of its GDP on social protection, which is a high share in an international comparison (BMASK, 2014). Eligibility and assessment criteria for social benefits for unemployment, old age, and invalidity are primarily linked to an individual's previous labour market activity and income status, following the logic of a 'conservative welfare state' according to the popular classification of Esping-Andersen (BMASK, 2014; Esping-Andersen, 1990, p. 9; Matznetter, 2002). Only relatively few benefits are means-tested and strictly income-dependent. This general structure of Austrian social protection expenditures is also visible in housing policy, as means-tested housing benefits only play a minor role in overall housing policy expenses.

In fact, supply-side housing subsidies to affordable housing construction, carried out mainly by LPHAs, have played the predominant role in Austrian housing policy. Contrary to many other EU countries, there has been a high level of continuity in this supply-side orientation since the reconstruction period after World War II, and only the policy emphasis has shifted from strongly quantitative objectives to higher quality standards, e.g., concerning energy efficiency of subsidised housing construction (Czerny & Weingärtler, 2007; Mundt & Amann, 2010). Regional

housing subsidies, which prevail in overall Austrian housing policy expenses (Wieser & Mundt, 2014), were still strongly supply-oriented in 2013, with 61% going to new housing supply (mainly cost-rent rental housing construction by LPHAs and loans to individual single-family house building). Some 25% was spent on encouraging refurbishments and retrofitting, and only some 13% went to demand-side housing subsidies in the form of HBs.

As a housing policy instrument, HBs belong to the first safety net of the Austrian social protection structure, much like unemployment benefits and assistance, public pensions, health and work-accident insurance, and family and student benefits (BMASK, 2014). Much like in other welfare states, HBs in Austria bolster low work-related incomes to 'enable recipients to raise their level of housing consumption above that which they would otherwise be able to afford' (Kemp, 2007b, p. 5).

The nine MI schemes of the regions constitute a second safety net: They guarantee a minimum income to destitute households, but are subordinate to all other possible benefits. They also cover housing costs up to certain limits. Both HB and MI schemes, and how they interact, are analysed more closely below.

Housing benefit schemes of the nine Austrian regions

HBs in Austria were historically reserved for the already subsidised housing stock, i.e., the LPHA cost-rent and the municipal rental stock, where HBs were introduced mostly in the 1970s. They only gained importance in the subsequent decades, when high-quality standards in the subsidised stock led to higher cost-rent levels, which eventually required an increase in demand-side housing subsidies for low-income households to safeguard accessibility.

Starting in the 1990s, most regions, which by devolution of responsibility from the federal state had become responsible for housing subsidy schemes, gradually expanded HBs to larger housing market segments, especially to the private rental sector. These two trends, i.e., the increasing cost-rent level in the subsidised stock and the extension of HBs to the private housing stock, have contributed to a strong surge in regional HB expenses in the 2000s (Figure 3). Across all nine Austrian regions, expenses almost doubled between 2003 and 2010 to a level of € 399 million. As a result, fewer funds were left for traditional supply-side subsidies to new affordable housing construction, to which the regional administrations reacted by legal adaptations to the HB schemes to curb expenses. By restricting access criteria or, less noticeably, by not adapting calculation formulas to past inflation, average HB payments per household decreased. These adaptations reduced HB expenses to € 342 million in 2014. While housing costs and rent levels continuously increased during that time, HBs to low-income households actually declined. This strongly mirrors international experience when in many countries HB schemes were restricted precisely during times of rising housing costs to control and curb housing

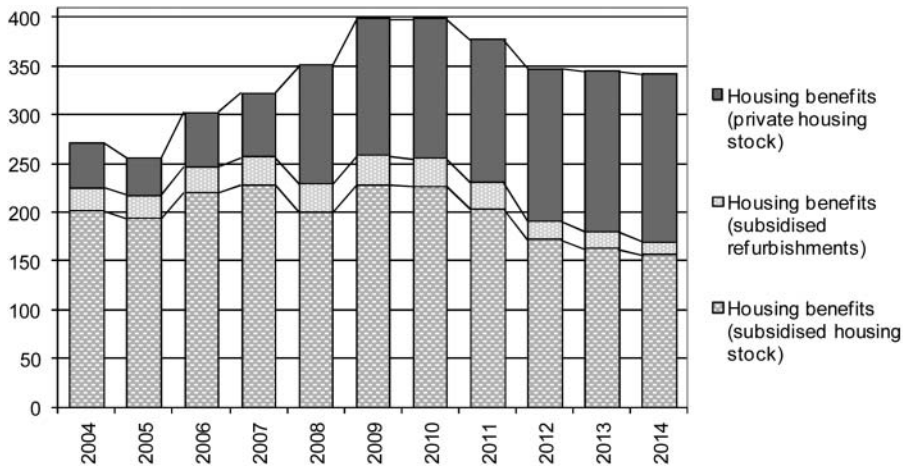

Figure 3. Regional housing benefit expenses (in € million) between 2004 and 2014.
Source: Regional housing subsidy accounts, IIBW calculation, see IIBW & FV Steine-Keramik, 2015.

policy expenses, often with negative repercussions for recipient households (Enström Öst, 2014; Kofner, 2007; Turner & Whitehead, 2002; Powell, 2015).

Demand-side housing subsidies in Austria are still not dominant in comparison to supply-side measures and have never reached the importance they attained in some other, not only 'liberal', but also 'social-democratic', and 'conservative' EU welfare states (Esping-Andersen, 1990; Griggs & Kemp, 2012). While Great Britain spent some 1.4% of its GDP on housing benefits in 2011, and France some 0.8%, Austria only spent 0.2%. In some countries demand-side housing assistance is provided to a large share of all households (e.g., 13.1% in the UK and 24.8% in France, see Griggs & Kemp, 2012, p. 398), but only 5.5% of Austrian households received HBs in 2012 (IIBW et al., 2014). The Austrian housing policy focus still remains with the provision of cost-rent, affordable rental housing. However, with a social housing stock aiming at lower *and* middle incomes, HBs, which are strongly income-related, play an important role in increasing housing affordability for the neediest households. They are more targeted than supply-side housing subsidies or access criteria to the social rental housing stock (Griggs & Kemp, 2012; Knittler, 2009, p. 400).

The levels of HBs in all nine regions are calculated according to a version of the *housing gap formula* (see Haffner & Boelhouwer, 2006; Turner & Elsinga, 2005, p. 946) that is widely used internationally:

$$\text{Housing benefit (HB)} = \text{applicable housing costs (AHC)} - \text{reasonable housing expenses (RHE)}$$

Applicable housing costs (AHCs) are usually limited to a maximum, depending on household and apartment sizes, sometimes also quality criteria, and a maximum

price per square metre. Only if actual housing costs are below these notional limits are they used as AHCs instead. Usually, the AHCs cover net rents, in some regions also overhead building charges included in gross rents. Energy costs are never covered in the HB schemes.

Reasonable housing expenses (RHEs) depend on household composition and household income. They are usually a nonlinear function of overall household income and are calculated for varying household sizes (*RHE curves*). In some regions, households are expected to pay no more than 25% of their income on housing, while housing costs above this income share will be covered by HBs. In most regions, however, the share of housing costs payable out of the household's own budget is less than 25% for very low incomes, with non-linear increases to 25% as income rises.

These general principles in the calculation of HBs are the same across the nine Austrian regions. However, many other details differ, e.g., on maximum applicable housing costs, the taper of RHE curves (i.e., the marginal withdrawal rate as income increases), the housing stock covered, and other requirements on applicant households (see Mundt & Amann, 2015, p. 30–44). In some regions, there are also maximum limits to HBs. Average HBs per household and month range between approximately € 110 (B) and € 220 (VO) (IIBW et al., 2014). The social rental sector is included in the HB schemes of all regions. The private rental sector is included everywhere except for Lower Austria. Homeowners have access to the HB schemes in some regions, but in practice they only play a role in Tyrol, Vorarlberg, and Lower Austria (only for the LPHA housing stock and subsidised homeowners).

As a first finding of the analysis, by calculating maximum applicable housing costs following the RHE curves, we calculated income brackets within which households may potentially receive HBs (Table 1).

In some regions the authorities apply minimum income requirements for households to qualify for HBs. The regional administrations justify this requirement as a way of seeking to differentiate clearly between housing policy-related measures and income-support schemes. The former are linked to HBs while the latter are part of MI schemes. The problematic repercussions of such entry thresholds for low-income households in some Austrian regions are discussed in the 'Household calculations' section.

Housing cost coverage in the minimum income schemes

The former social assistance schemes of the nine Austrian regions were partly harmonised as a result of a federal initiative in 2005, which culminated in a state treaty between the federal and regional governments (Dimmel & Pratscher, 2014). Since 2010/2011 the regions have put these alignments into effect and implemented the following key aspects (see BMASK, 2014):

Table 1. Income brackets (monthly net single-person household income) for claiming HBs across regions.

Region	Income brackets to qualify for HBs: single household	Special requirements
Burgenland (B)	€ 815–1160	Minimum income requirement, no HBs for MI recipients
Carinthia (C)	€ 0–1460	
Lower Austria (LA)	€ 0–1300	No HBs in the private rental market (only for subsidised units)
Upper Austria (UA)	€ 400–1079	Minimum income requirement can be fulfilled by MI benefits
Salzburg (S)	€ 0–1450	Only unlimited rental contracts and high quality apartments
Styria (ST)	€ 0–1250	The maximum HB is relatively low
Tyrol (T)	€ 0–1460	
Vorarlberg (VO)	€ full-time– 1414	Full-time employment is necessary in most cases
Vienna (VI)	€ 815 – 1200	Minimum income requirement is not fulfilled by MI benefits

Source: Own calculation based on regional housing subsidy laws and information by practitioners, 2013 values.

- MI schemes are not an unconditional basic income. Claimants are only eligible for MI if they are neither able to raise the resources for basic subsistence through their own efforts, nor through entitlements to other social benefits, insurance, or assistance payments (e.g., unemployment benefits, alimony). Any savings must be depleted to approximately € 4000 before claiming MI. This is called the *subsidiarity principle.*
- Uniform minimum standards for all those who meet the eligibility criteria are set across all regions. However, regions can top up these floor levels, e.g., by providing higher benefits for children.
- The flat-rate minimum income level already includes some support for housing, usually 25%. The regions may grant additional support for housing if actual housing costs exceed this designated share.

Our analysis shows that it is primarily the treatment of housing costs in the MI schemes that makes benefit levels so different across regions: Some regions apply just the 25% share of MI standards for housing (B, C, LA), some regions grant voluntary higher additional levels of housing support, which sometimes have locally adapted maxima (UA, S, ST, VI), and some regions are willing to cover all housing

costs of an applicant as long as these stay within locally reasonable limits (T, VO). While most regions only include gross rents (net rents plus overhead building charges) in their definition of housing expenses, Tyrol (T) also includes heating and warm water expenses, and Styria (ST) includes heating, warm water, and electricity. The household examples below illustrate how different definitions of housing expenses lead to major differences in benefit levels and RIs (net of housing costs) of MI claimants.

Since the reforms of 2010/2011, the number of persons in households claiming MI payments has risen strongly across all nine regions from 193,000 to 256,000 persons in 2014. Expenses increased from € 439 million to € 673 million in the same period (data provided by regional administrations; Pratscher, 2015, p. 870). The reasons for this development are the deteriorating economic situation, the increase in unemployment, but also the stagnation of real wages. In particular, the number of households that receive MI payments to top up low labour-related incomes has increased strongly. Another probable reason for the increase in MI payments is the improvement of take up rates since the reforms of 2010/2011 and the fact that benefit levels are now higher than in the previous schemes and reach larger segments of the population (BMASK, 2014). A large and increasing number of MI claimants are refugees who enter the schemes once they have been granted asylum (Hadler, 2016). Ultimately, rising housing costs and the retrenchment of HB schemes in some regions have led to a stronger dependence of needy households on the MI schemes (especially in Vienna). According to an estimate, in 2012 already some 37% of all MI expenses across all regions were housing related (Mundt & Amann, 2015, p. 68). This estimate is based on data provided by those regions that document housing cost-related subsidies to MI recipients (T, VO, VI), and estimated shares for the other regions according to information provided by the regional administrations.

Methods and data

The main aim of this contribution is to assess housing affordability for low-income and destitute households in light of the two previously described benefit schemes (HB and MI) and prevalent housing costs. The method of choice is a RI approach to housing affordability. This approach, which is closely related to the concept of shelter poverty (Kutty, 2005), focuses on whether incomes net of housing costs suffice to cover necessary non-housing consumption expenditures (which vary with household size and composition).

Similar to the affordability-ratio approach that sets arbitrary limits to affordable housing-cost-to-income shares, the RI approach to affordability is rooted in normative standards for housing and non-housing consumption (Bramley, 2012; Stone, 2006). The normative standards applied in this analysis are the legal non-housing minima set by the regional MI administrators. Housing is deemed unaffordable, by this definition, if the RI undercuts legal non-housing minima, in spite of HBs and,

where possible, MI payments. However, we do not test if these non-housing minima are in line with regionally prevalent costs for necessary non-housing items. Nevertheless, we still believe that the regional minima are adequate benchmarks for measuring housing affordability due to the following reasons. When the federal initiative was established in 2005, the uniform minimum standards for non-housing expenses were set with regard to household-specific shopping baskets and, since the harmonisation of 2010/2011, minimum standards have been adapted to inflation rates (BMASK, 2014; Dimmel & Pratscher, 2014). Non-housing costs vary regionally and locally, but to a much smaller degree than housing costs. To account for remaining regional differences, the regions have leeway to adapt their own minimum standards to differences in price levels, but only by increasing their standards, not by lowering them below the uniform minimum level. Some regions have adapted their standards accordingly. As our analysis is directed at regional administrations, their legally binding minimum standards are important benchmarks for policy orientation and future reforms. For a more detailed further analysis, the calculations we perform also enable a comparison with other existing benchmarks, i.e., based on locally varying non-housing consumption costs. As a first important step, we primarily address the question whether the regions' administrations meet their self-set standards for minimum non-housing incomes out of the MI schemes, after prevalent housing costs are considered.

A regional comparison of HB and/or MI recipient households in Austria cannot be based on survey data such as EU-SILC because, at the regional level and for specific household types, sample sizes for these population subgroups are too small and result in unreliable estimates. The databases of the regional administrations on details of HB and MI claimants were not accessible or adequate for a detailed analysis. Therefore, we conducted our own calculations on possible housing cost benefits starting with assumptions on household types, income levels, and housing costs (described in the section 'Household calculations'). Desk research was combined with 26 qualitative interviews to discuss our approach and scrutinise the results of the calculations. These in-depth interviews were conducted mainly in the Austrian regional capitals in person, and, where not possible, by phone. A semi-structured interview guide to prompt data collection was used throughout (Hennink, Hutter, & Bailey, 2011, p. 108–109). Most interview partners were experts and practitioners in the regional administrations, mainly the heads of the departments concerned with HBs and MI, respectively (two interviews per department and the nine regions, thus, 18 interviews in total). The aim of these interviews with practitioners was (1) to find out how benefit levels are calculated and administered in practice, (2) to have access to locally focused knowledge on possible risk groups, hard-to-house market segments, and administrative budgets, and (3) to cross validate and check the example household calculations. We also conducted interviews with welfare providers and non-profit organisations in the regions to identify vulnerable groups on the housing markets who, for one reason or another, fell through the housing protection safety nets.

A complete list of the interview partners and their positions, the location, and time of the interviews is summarised in Mundt and Amann (2015, p. 107).

The subsidy calculations are based on regional laws and stipulations, and any available information on how these are put into practice (Mundt & Amann, 2015, p. 16–17, which includes a list of the 31 laws and ordinances). The empirically observed housing costs on a regional level are derived from adequate data sources, such as the annual microcensus in Austria (e.g., Statistik Austria, 2014) and EU-SILC (e.g., Statistik Austria, 2014; 2015), but also from survey data on market rents from the real estate industry (e.g., WKO, 2014).

Household calculations

Guidance to the household calculation tables

The rationale for the housing cost calculations was to establish a household's RI if its own income components and additional benefits (HB and/or MI) are reduced by prevalent housing costs. The benchmark against which to measure the RIs are the legal non-housing minima set by the regional MI legislations and administrations. The legal non-housing minimum income is defined as necessary daily expenses for food, clothes, personal hygiene, household items, participation in social life, and heating and electricity. Only in Tirol and Styria are these latter housing-related energy costs partly or fully covered in the housing component of MI benefits, which had to be considered in the comparison (see below).

The advantage of multivariate calculation tables is that they offer a compact display of variable housing costs to be compared: Housing costs are not fixed but are calculated for different levels, according to the market segment which is the focus of this analysis. Average regional rents are much lower than market rents and rents in the regional capitals are usually higher than overall regional market rents. By calculating RIs for various housing cost segments, housing affordability can be analysed in a much more detailed way.

The tables for calculating the sum of benefits for different household types combine information on nine regions, four different monthly starting income levels (before claiming benefits), and three levels of assumed housing costs. For each case, first HBs and subsequently MI payments were calculated for the year 2014. There are four calculation tables, each corresponding to a household type. Two housing cost calculation tables (for the single-person household and the household with two adults and three children) are included in the appendix (Tables A.1 and A.2).[1] The example households were selected due to their prevalence within actual MI claimants and/or their association with an increased risk of poverty. The calculations are based on the following assumptions:

- The four starting levels of income (when applying for benefits) are: household has no income of its own; household has a very low income, e.g., based

on unemployment insurance; household has a labour-related income which is just above the federal MI standard (housing cost additions can be claimed in some regions), and finally, the risk-of-poverty income limit according to EU-SILC (i.e., a low income household).

- A quality norm for housing was considered in the calculations by assuming apartment sizes in accordance with allowed square metres (depending on household sizes), so that maximum HBs could be claimed in most regions. These are 50 m^2 for a single-person household and 100 m^2 for a household with two adults and three children.
- The assumed housing costs are € 200, € 300, and € 400, for a single-person household, and € 500, € 700, and € 900, for a household with two adults and three children. These cases were calculated for all regions. The empirically relevant housing costs, however, depend on the housing cost level of the respective region (see section on rental housing costs in Austria). The relevant housing costs columns are indicated in the housing costs row by the regions' abbreviations. We analyse benefit levels and affordability in the light of varying rent levels: averages across the whole rental stock, higher market rents, and still higher rents in the respective regional capitals. For the last two cases, housing cost columns on the right-hand side of the tables should be considered in all regions.
- Whenever HBs are calculated, a private rental apartment is assumed, except for Lower Austria, where HBs are reserved for the subsidised stock.
- Where necessary, housing costs were separated into 75% rental costs and 25% overhead building charges. Likewise, energy costs were assumed to be 30% of housing costs (20% heat, 10% electricity). Both assumptions are based on microcensus and EU-SILC findings on housing and energy costs of households at risk of poverty (Statistik Austria, 2014).

As an example, consider the single-person housing cost calculation (Table A.1 in the appendix): The first column signifies the region. The second column shows the four starting levels of income. Depending on these income levels, *reasonable housing expenses* for the calculation of HBs can be obtained from the RHE curves. These are the housing costs the household is expected to pay out of pocket.

Applicable housing costs for the calculation of HBs depend on the assumed overall housing costs, dwelling characteristics, and the maxima set in the regional subsidy laws. After claiming HBs, the applicant household turns to the MI administrators who calculate the MI level to which it might have a legal right. Both HBs and MI are summed in column Σ: This is the sum of benefits a household can receive.

The crucial value is the RI, i.e., the household's own income in addition to the sum of benefits less the assumed housing costs. These funds have to be used by the household to pay for everyday non-housing items and energy. In theory, they should be

equal to, or above, the legal minimum non-housing income standards (last column). Otherwise, non-covered housing costs leave welfare recipients with insufficient funds to meet necessary daily expenses. For most regions the minimum non-housing standard was around € 610 per month in 2014 for a single-person household.

Findings

While it is not possible to delve into the details of all results for all regions, we can summarise important findings on the two benefit schemes and their interaction. Important regional results are summarised in Table 2.

Concerning the HB schemes, we find that housing costs are never 100% covered because applicable housing costs are lower than actual housing costs, and energy costs are not covered in the HB schemes at all. While HBs decrease with income in all regions, the *reasonable housing expenses* paid by the household on its own varies strongly, contingent on the differences in the RHE curves.

Housing cost coverage in the MI schemes is very different across regions and household types. The MI state treaty between the federal government and the regions demanded additional housing cost coverage in regions where housing costs exceed the 25% of minimum income standards. The calculations show that, as a tendency, this requirement is met in the most expensive regions providing extra housing cost coverage (S, VO, T, VI). However, housing cost coverage in MI schemes is not sufficient in some regions, or parts of regions (e.g., the city of Salzburg or Lower Austria, around Vienna), where housing costs far exceed MI payments.

In order to maintain consistency in the tables across regions, it was assumed that the RI would have to be used for non-housing consumption including energy costs in all regions. However, note that as mentioned previously, Tyrol and Styria do cover some housing-related energy costs within their MI housing payments. Therefore, the calculated RI (RI) may be above the legal minimum non-housing income standards there, because additional benefits for energy costs were included. The additional coverage in Tyrol and Styria has a strong influence on the positive results for these two regions.

Overall, the tables show that non-covered housing costs in certain cases leave welfare recipients with insufficient funds to meet necessary daily expenses. Especially in and around the capital city Vienna, in the region and city of Salzburg, and in parts of Lower Austria, overall benefits to welfare recipients are insufficient to cover prevalent housing costs. In many cases, the benefit levels suffice to cover housing costs in the social rental sector, i.e., the LPHA rental housing sector and, in Vienna, the municipal housing stock, where rental costs are much lower than in the private rental sector. Nevertheless, housing cost coverage is often insufficient in private market segments, for new contracts, and especially in the regional capitals.

Some households will react by choosing smaller apartments than considered adequate by regional administrators, whereby the benefit schemes lose their

Table 2. Main findings of the household examples across regions.

Burgenland (B)	HB and MI are mutually exclusive and are typically low. Only because housing costs are still very low, sufficient coverage can be reached in many cases. Vulnerable households: Recently unemployed, large families, single-parent households.
Carinthia (C)	There is low MI housing coverage, but also average housing costs are low. Carinthia, as the only Austrian region with a declining population, faces less housing cost dynamics. Vulnerable households: Large families, third-country nationals, refugees with subsidiary protection status, single-parent households.
Lower Austria (LA)	Housing cost coverage is extensive only in the subsidised housing stock were HB is granted. The MI housing component is very low and not locally differentiated. Around Vienna, housing costs are thus unaffordable for MI recipients. Vulnerable households: Large families, single-parent households, households in private rental stock.
Upper Austria (UA)	HB is granted in addition to MI. For these cases, housing cost coverage is high. If household only receives MI, housing costs are often not covered sufficiently. Vulnerable households: several special cases due to recent HB changes.
Salzburg (S)	HB is granted in addition to MI (but not in many cases, because access to HB is strict). Locally differentiated housing cost-coverage in MI is high, but market rents are higher still. Housing cost coverage is therefore not guaranteed. Vulnerable households: households that cannot find adequate dwellings suitable for the schemes.
Styria (ST)	The maximum HB is low, but the relatively generous housing cost coverage in MI, with locally varying maxima, also includes energy costs. There is extensive housing cost coverage in many cases. Vulnerable households: several special cases due to recent HB changes.
Tyrol (T)	HB differs by municipalities and can be low for MI recipients. However, MI benefits and residual incomes are very high, because complete housing cost coverage includes heating and warm water. Vulnerable households: some third-country nationals in HB schemes.
Vorarlberg (VO)	High HB and complete housing cost coverage in MI scheme. Vulnerable households: some third-country nationals in HB schemes, some households without full-time employment in HB schemes.

Source: Own compilation based on calculation tables and additional analyses (Mundt & Amann, 2015).

function to increase housing consumption to a desirable minimum. Many of the interview partners reported the general problem that not enough apartments of the right size are available, i.e., small to very small apartments for single-person households and very large apartments for families with many children, household types that are frequent among MI recipients.

In most regions, HBs are seen as income components when calculating MI benefits. For that reason, HBs are granted *instead* of MI benefits, not in addition to them. Even in the few regions which grant housing benefits in addition to MI (UA, S, partly VI), only a low share of households actually receives both benefits. Against expectations, the proportion of MI claimants who also receive housing benefits is rather low. The regions where numbers are available estimate the share to be only around 25% (the only exception is Styria with 80%). The reasons for this finding vary: Some regions try to differentiate between housing policy measures through HBs and subsistence guarantee measures through the MI schemes. This is the reason some regions have introduced minimum income levels to access the HB schemes (B, VI, partly UA) or even require full-time labour market participation of most applicants (VO). Other reasons are limitations of HBs to certain rental market segments (LA, UA, ST, VO), strict requirements on rental contracts (S), or the absence of HBs in the owner-occupied housing stock. As a result, HBs hardly contribute to non-covered housing costs in the MI schemes. In many cases, the household examples are thus not that widespread in practice: the question of how HB are treated in MI calculations turns out to be subordinate to the problem that relatively few MI claimants are actually able to access the HB schemes. As Table A.1 in the Appendix shows, in some regions, households with no or very low income will depend on MI schemes exclusively, and have no or only very restricted access to HB schemes (B, VO, VI).

Returning to the classification of three different forms of interaction between social assistance payments and HB schemes (Griggs & Kemp, 2012; Kemp, 2007a), it turns out that there is no uniform model followed in Austria, but that the regional practice matters. Most regions reduce the housing component in MI payments 1:1 in cases where HBs are granted. Only some regions grant HBs in addition to MI schemes. Some regions provide extensive housing cost coverage in MI schemes but exclude MI recipients from HB schemes. This also explains the shift from HB budgets to MI budgets that has happened in some regions in recent years. For the recipient households, however, it is far from irrelevant into which benefit scheme they fall, because MI schemes pose greater administrative hurdles to access and, as they require savings to be depleted first, might contribute to effects of a poverty trap. There is also a tendency that take up rates in MI schemes are lower than in HB schemes because the stigma and the administrative efforts are greater.

Similar to the single-person household, for households with two adults and three children (Table A.2 in the Appendix), benefit levels and RIs are highest in Tyrol, Vorarlberg, and Salzburg. They are, however, insufficient in many regions (due to low maxima in MI schemes) even if low housing costs are assumed (B, C, LA).

The most important findings concern Vienna. It is the region where 60% of MI claimants live, housing cost dynamics are the strongest, and population growth is expected to remain high. Vienna has by far the most complicated system of calculating HBs, with varying maxima according to contract type, housing stock, household composition, etc. Housing cost coverage is too low in the MI scheme (e.g., a maximum of € 304 for single-person households and households with two adults) and will frequently not cover typical rental costs. As a result, in many cases, RI will end up below legally targeted MI standards for non-housing items. The minimum income requirement for accessing HB schemes excludes many low-income earners and MI recipients, aggravating the problem and contributing to the shift of HB expenses into MI budgets. The municipal administration is planning to combine all cash-based benefits of the HB and MI schemes into a more transparent and manageable scheme (*Wohngeld*), but the new system has not been implemented yet. A one-desk approach and higher benefit levels would be a welcome improvement.

Discussion of the benefit designs

So far we have summarised our findings on how HB and MI schemes increase the affordability of housing in the Austrian regions, and where there are holes in the safety net for specific localities or household types. Nevertheless, an income-dependent benefit scheme must maintain a good balance between effectively safeguarding housing affordability and making efficient use of state resources. We therefore turn to the question of whether there is any empirical evidence of design inefficiencies built into the benefit schemes in Austria, similar to those investigated in other EU countries (Haffner & Boelhouwer, 2006; Kemp, 2007a; Priemus & Kemp, 2004; Turner & Elsinga, 2005). Following Haffner and Boelhouwer (2006), we discuss the topics of possible over consumption, work disincentives, and horizontal inefficiency. We also briefly discuss the problem of induced rent increases witnessed in select countries.

If benefit levels are perceived as too generous, they may facilitate over consumption of housing. For example, if housing costs and their increases are covered up to 100% by benefit schemes, the absence of *shopping incentives*, i.e., the need to look for a less expensive accommodation, could lead to housing cost increases for larger market shares and counteract the purpose of the benefit (Haffner & Boelhouwer, 2006). For the Austrian case, findings show that there are many design features built into the subsidy schemes that have been shown to prevent such over consumption in other countries (Kemp, 2007b; Turner & Elsinga, 2005), for example, housing expenditure ceilings, benefit maxima, a minimum tenant contribution, and administrative rules. In Austria, *shopping incentives* to find cheaper accommodation, where higher rental cost shares are covered by HBs, are in place in all regions. This contributes to an efficient benefit design, but, as lower notional maxima are considered rather than actual costs, it also reduces the benefits' function of increasing affordability. As reported for Sweden (Enström Öst, 2014), public administrators struggle to harmonise disincentives to

over consumption with preventing over-crowding and encouraging a minimum of desirable housing consumption. Emulating research in the UK (Walker & Niner, 2012), further analyses of the Austrian benefit schemes could proceed by comparing HB recipients with similar low-income households without HBs to find traces that subsidies either encourage over consumption or fall short of increasing housing consumption to a desirable level.

Theoretically, high benefit levels might induce households not to work or to work less than they would in the absence of the benefits. Such possible negative labour market effects have been investigated in many countries, with very mixed results (e.g., Chen, 2006; Enström Öst, 2014; Hulse & Randolph, 2005; Nordvik & Åhrén, 2005; Pryce, 1999). HBs in Austria are often targeted at middle-income households who have a work-related income. The withdrawal rate of HBs in case the income increases is usually not very steep and follows a non-linear function. This limits possible negative effects on labour supply.

The administrators also reported no immediate signs of negative labour market effects with respect to MI schemes: A high proportion of MI claimants cannot return to work (due to old age, as they are single parents with small children, disabled, mentally ill, etc.) and the average spell of MI claims is only eight months (BMASK, 2014). Savings have to be used up before claiming MI and controls are very strict. A more detailed analysis of possible negative labour market effects in Austria would require a better quality of the claimants' database and access to it, which is restricted. Further analyses should focus on the tapering off of income tax, which is very steep in Austria, and how this might reinforce negative labour market incentives in combination with HBs and other subsidies (Mundt & Amann, 2009).

'*Horizontal economic inefficiency*' (Haffner & Boelhouwer, 2006, p. 948) arises when not everyone who is needy is able, in principle or in practice, to receive assistance. This concept is strongly related to unequal treatment of population groups and the variability of take up rates. This is probably the area where Austrian benefit schemes face most challenges. The inconsistent treatment of HBs in MI calculations across the regions leads to unequal treatment of needy households. The exclusion of MI claimants from HB schemes through minimum income requirements counteracts a targeted allocation of resources. Often, households with similar incomes will receive very different levels of HB according to the region they live in. HBs vary strongly across regions and often, within regions, across housing market segments. This unequal treatment may lead to households relocating to regions where subsidy levels are highest, and could eventually foster harmful benefit competition amongst regions. As the interviews have shown, the strong surge in the number of MI claimants in Vienna is partly due to a relocation of needy households from other regions to the capital. Vienna is indeed attractive for welfare recipients, compared to the lower level of MI subsidies in the municipalities bordering Vienna and belonging to Lower Austria. However, many regions have far higher MI standards in place than Vienna and no relocation to these most generous regions (T, VO,

partly S and ST) was reported in the interviews. This indicates that Vienna, as the capital city, shows important pull factors for needy households other than the subsidy level of MI or HBs. Such factors might include the anonymity of a large city that helps avoid stigma when claiming welfare benefits, the expectation of better employment options, existing ethnic networks, etc. Further research and better data sources are needed to identify the motivations of needy households and welfare recipients for moving between regions, and to estimate the dimension of such behaviour.

Another aspect, only briefly touched on in Haffner and Boelhouwer (2006), but very prominent in other comparative and single-nation case studies, is the demand-led and uncontrollable nature of income-dependent housing allowance schemes. According to Griggs and Kemp (2012), in many countries, the emphasis of housing allowance schemes has shifted from its housing policy-related goal (to raise the level of housing consumption to an adequate level) towards the income-support goal (to reduce the share of income devoted to housing), which has contributed to higher expenditures. A strongly rising number of rent supplement claimants in Ireland are seen as a price paid for low social security expenditure and social housing provision (Norris, Healy, & Coates, 2008). The efficiency of demand-side cash benefits to housing consumption in the long run depends on supply responses to create a new equilibrium on the housing market. If supply responses are nonetheless restricted, benefits will be absorbed by rising prices in certain price inelastic submarkets, thus leading to harmful price dynamics and uncontrollable benefit expenses. Landlords, instead of renters, would benefit from the subsidies. Signs of this development have been reported from the US, France, and Finland (Fack, 2006; Kangasharju, 2010; Susin, 2002).

The Austrian system has the major advantage that the social rental sector cannot follow such induced rental rate increases, as rent levels are either based on historic costs or limited by law. The interviews with policy practitioners have not shown widespread concern about induced rental rate dynamics in the private rental sector due to HB or MI payments. Too few households are covered by the MI schemes in order for such a negative dynamic to take hold. Only some 3% of the Austrian population is covered by MI payments. In Vienna the share is highest with 8%, while in Carinthia it is only around 1% (Pratscher, 2015, p. 871). Only in two small urban submarkets, i.e., the already very expensive cities of Innsbruck and Salzburg, which are highly land constrained, did rent levels in the submarket of one-room dwellings reportedly rise to the level of maximum MI benefits. Such an effect might be expected in a constrained market. Public administrators should pay particular attention to these tendencies in Vienna, where MI recipients are growing in number. MI recipients should be provided better access to the rent controlled social housing sector, especially the LPHA sector, since the municipal housing stock already now is important for housing welfare recipients and vulnerable households, while the private sector is often too expensive.

Conclusions

In many OECD countries, housing cost-related cash benefits to low-income households have developed into main housing policy measures, while supply-side subsidies for affordable rental housing construction have lost importance. This development was widespread and justified by a variety of policy objectives (Kemp, 2007a). However, it should be borne in mind that, in international comparisons, the Austrian system with mainly supply-side subsidies backed up by housing benefits has demonstrated a very good performance concerning housing market outcomes and overall housing costs (Mundt & Amann, 2010; OECD, 2013; Pittini, 2012, p. 63–64). A far-reaching shift of subsidies from the supply to the demand side is therefore neither intended by Austrian policy makers at the moment, nor is it advisable. The combination of a large social housing sector with additional HBs has proven to be a suitable approach to maintain high levels of housing affordability.

In spite of the good experience with this combined approach, this analysis indicates that some fine-tuning in the HB and MI schemes, and an improvement of their interaction, are necessary to safeguard the main objective to increase housing affordability for low-income households. This study utilised the RI approach in combination with in-depth interviews with practitioners, a good approach to identify market segments and household types where affordability is at risk, in spite of existing benefit schemes.

There is a high degree of regionalisation in Austria concerning the design of HB and MI schemes. Calculating benefit levels for defined example households is thus demanding and requires knowledge of all 18 benefit schemes involved. This is necessary to identify cross regional differences and unequal treatment of population groups. The matrix structure of the calculations enables us to look at different starting incomes and market segments with distinctive housing costs. Our investigation pays special attention to the interaction of available subsidy schemes and introduces a new variant to empirical applications of the *RI approach* to housing affordability. The results provide important input to the much-needed cross-regional comparison of housing affordability in Austria. We find that in some regional submarkets, overall benefits to specific household types of welfare recipients are insufficient to cover typical housing costs and safeguard RIs that meet the required legal standards. This is the case especially in and around the capital city Vienna, in the region and city of Salzburg, and in parts of Lower Austria. The results, however, vary across housing market segments and household types, and have to be interpreted with care.

From our analysis of the benefit designs and the interaction between the existing schemes, the following policy implications can be drawn: The HB schemes of the regions have developed over almost half a century and over time administrators have changed their design to cater to specific regional housing needs. In many respects they have been tailored to the needs of the regional populations. Yet, for

the sake of transparency and equal treatment of population groups, we recommend reducing the complexity of HB schemes yet again. Minimum standards across all regions, much like the harmonisation of MI schemes, should be a first step. Such standards should take into account equal treatment of migrants and refugees, the housing stock and rental contracts covered by the schemes, limits to reasonable housing expenditures, income components, etc. This would increase the *horizontal efficiency* of the system in a way that equally needy households are treated consistently across regions. In some regions, minimum income requirements to enter HB schemes hinder a targeted allocation of resources and push needy households into MI schemes, which are more rigorous and difficult to enter (and possibly to exit as well). Following the *subsidiarity principle*, MI schemes should only be a safety net of last resort, so HB schemes should be made more accessible for low and very low-income households in all regions by abolishing entry barriers. This would also require a better coordination between regional housing policy and MI budgets and would probably lead to a relocation of expenditures from MI schemes to HB schemes. Overall, higher expenditures would be necessary in order to make the HB schemes more accessible.

Concerning MI schemes, the federal initiative of 2005 that led to minimum standards across all regions has brought security and more transparency to the system. However, the very unequal treatment of housing costs has countervailed this trend. This is the main reason why there are regional discrepancies between equally needy households, which may end up with very unequal RIs when considering the sum of benefits and deducting housing costs. In order to maintain housing affordability for welfare recipients, and thus safeguard RIs in line with necessary daily non-housing expenses, we recommend orienting MI payments for housing according to actual housing costs rather than notional maximum limits, undifferentiated across markets. This policy is already the norm in some regions (T, VO, partly S and ST). This approach should be adopted by more regions, so that housing affordability can be secured. It is necessary to counteract very unequal benefit levels that might motivate households to move to regions that offer more favourable conditions. Such a harmful benefit competition between the regions, and a possible 'race to the bottom' concerning the benefit levels, should be prevented.

At the same time, administrators should pay attention to other possible inefficiencies of benefit schemes, such as possible negative labour market incentives and poor supply responses leading to harmful price dynamics. Our analysis shows that many design features to mitigate such negative consequences are already in place in Austria. Thus, these issues should be subordinate to the affordability concern analysed in this study. Further research and better access to data on welfare recipients is needed to monitor these issues more closely in the future. Fruitful further investigations might also include analyses of whether differences in benefit levels in fact lead to households relocating between regions. In our analysis we assume the non-housing minimum income standards to be exogenous benchmarks. A more

detailed analysis might introduce other benchmarks, such as locally diverse non-housing consumption costs or household-specific consumption baskets. As regional administrators adapt their subsidy regulations annually, our analysis can only be a status quo and will need continuous updating. A new challenge for future research and policy will also be how to integrate the large number of persons recently granted asylum in Austria into regional housing markets and existing benefit schemes.

Overall, the outcome of this research, and future investigations along these lines, can help reform demand-side housing policy instruments and their position within the *combined* housing policy approach followed in Austria. This combined Austrian approach has shown positive effects on housing affordability in comparison with other countries. The overarching policy goal should be to preserve and enhance this advantage.

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Note

1. The remaining two tables (for households with one adult and one child and with two adults and one child) are available from the author upon request.

References

Amann, W., & Mundt, A. (2014). Armutspolitische Dimensionen von Gemeindewohnraum, gemeinnützigem Wohnbau und Wohnbauförderung [Poverty prevention and social inclusion by means of municipal housing, social housing and housing subsidies]. In N. Dimmel, M. Schenk, & C. Stelzer-Orthofer (Eds.), *Handbuch Armut in Österreich* [Handbook Poverty in Austria] (pp. 753–770). Innsbruck, Vienna, Bozen: Studienverlag.

Beer, C., & Wagner, K. (2012). Wohnkostenbelastung der österreichischen Haushalte: Ergebnisse einer aktuellen Erhebung [Housing cost overburden rates of Austrian households: Results of a recent survey]. *Geldpolitik & Wirtschaft*, *Q4/12*, 82–95.

BMASK (Austrian Federal Ministry of Labour, Social Affairs and Consumer Protection) (Ed.). (2014). *Social Protection in Austria 2014*. Vienna: BMASK.

Bramley, G. (2012). Affordability, poverty and housing need: Triangulating measures and standards. *Journal of Housing and the Built Environment*, *27*(2), 133–151. doi:10.1007/s10901-011-9255-4

Chen, J. (2006). The dynamics of housing allowance claims in Sweden: A discrete time-hazard analysis. *European Journal of Housing Policy, 6*(1), 1–29. doi:10.1080/14616710600585570 8

Czerny, M., & Weingärtler, M. (2007). *Housing construction and renovation as a tool of economic prosperity*. Study by the Austrian Institute of Economic Research commissioned by the Federal Ministry of Economics and Labour. Vienna: WIFO.

Deutsch, E., & Lawson, J. (2012). International measures to channel investment towards affordable rental housing: Austrian case study. Study by the Australian Housing and Urban Research Institute for the Government of Western Australia. Melbourne: AHURI.

Dimmel, N., & Pratscher, K. (2014). Sozialhilfe: Strukturen und Entwicklungen [Social assistance: Structures and developments]. In N. Dimmel, M. Schenk, & C. Stelzer-Orthofer (Eds.), *Handbuch Armut in Österreich* [Handbook Poverty in Austria] (pp. 863–890). Innsbruck, Vienna, Bozen: Studienverlag.

Enström Öst, C. (2014). Economic incentives, housing allowance, and housing consumption: An unintended consequence of a shift in housing policy. *Journal of Housing Economics*, *23*(1), 17–27. doi:10.1016/j.jhe.2013.11.003

Esping-Andersen, G. (1990). *The Three Worlds of Welfare Capitalism*. Cambridge: Polity Press.

Fack, G. (2006). Are housing benefit an effective way to redistribute income? Evidence from a natural experiment in France. *Labour Economics, 13*(6), 747–771. doi:10.1016/j.labeco.2006.01.001

Guger, A. (Ed.). (2009). *Umverteilung durch den Staat in Österreich* [Redistribution by state transfers in Austria]. Vienna: WIFO.

Griggs, J., & Kemp, P.A. (2012). Housing allowances as income support: Comparing European welfare regimes. *International Journal of Housing Policy, 12*(4), 391–412. doi:10.1080/14616718.2012.711987

Hadler, S. (2016). In der Mitte angekommen [Arrived in the center]. ORF.at News, 25.6.2016.

Haffner, M.E., & Boelhouwer, P.J. (2006). Housing allowances and economic efficiency. *International Journal of Urban and Regional Research, 30*(4), 944–959. doi:10.1111/j.1468-2427.2006.00699.x

Haffner, M.E., & Boumeester, H. (2014). Is renting unaffordable in the Netherlands? *International Journal of Housing Policy, 14*(2), 117–140. doi:10.1080/14616718.2014.908570

Hennink, M., Hutter, I., & Bailey, A. (2011). *Qualitative research methods*. Los Angeles, CA: Sage.

Hulchanski, J.D. (1995). The concept of housing affordability: Six contemporary uses of the housing expenditure-to-income ratio. *Housing Studies*, *10*(4), 471–491. doi:10.1080/02673039508720833

Hulse, K., & Randolph, B. (2005). Workforce disincentive effects of housing allowances and public housing for low income households in Australia, *European Journal of Housing Policy, 5*(2), 147–165. doi:10.1080/14616710500162640

IIBW, Arge Eigenheim, & FV Steine-Keramik (2014). *Wohnbauförderung in Österreich 2013* [Housing subsidies in Austria 2013]. Vienna: IIBW.

IIBW, & FV Steine-Keramik (2015). *Wohnbauförderung in Österreich 2014* [Housing subsidies in Austria 2014]. Vienna: IIBW.

Kangasharju, A. (2010). Housing allowance and the rent of low-income households. *Scandinavian Journal of Economics, 112*, 595–617. doi:10.1111/j.1467-9442.2010.01615.x

Kemp, P.A. (Ed.) (2007a). *Housing allowance in a comparative perspective*. Bristol: The Policy Press.

Kemp, P.A. (2007b). Housing allowances in context. In P.A. Kemp (Ed.), *Housing allowance in a comparative perspective* (pp. 1–16). Bristol: The Policy Press.

Kemp, P.A. (2007c). Housing allowances in the advanced welfare states. In P.A. Kemp (Ed.), *Housing allowance in a comparative perspective* (pp. 265–287). Bristol: The Policy Press.

Knittler, K. (2009). Wohnbauförderung [Housing Subsidies]. In A. Guger (Ed.), *Umverteilung durch den Staat in Österreich* [Redistribution by state transfers in Austria] (pp. 276–305). Vienna: WIFO.

Kofner, S. (2007). Housing allowances in Germany. In P.A. Kemp (Ed.), *Housing allowance in a comparative perspective* (pp. 159–192). Bristol: The Policy Press.

Kunnert, A., & Baumgartner, J. (2012). Instrumente und Wirkungen der österreichischen Wohnungspolitik [Instruments and effects of Austrian housing policy]. Study by the Austrian Institute of Economic Research commissioned by the Chamber of Labour Vienna. Vienna: WIFO.

Kutty, N. (2005). A new measure of housing affordability: Estimates and analytical results. *Housing Policy Debate, 16*(1), 113–142. doi:10.1080/10511482.2005.9521536

Lux, M. (2003). Efficiency and effectiveness of housing policies in the Central and Eastern Europe countries. *European Journal of Housing Policy, 3*(3), 243–265. doi:10.1080/1461671031000160371 2

Matznetter, W. (2002). Social housing policy in a conservative welfare state: Austria as an example. *Urban Studies, 39*(2), 265–282. doi:10.1080/00420980120102966

Mundt, A. (2013, September 17). *Housing supply in Austria: Providers, motivation, competition*. Conference paper presented at the WIFO 6th Geoffrey J.D. Hewings Regional Economics Workshop, Vienna.

Mundt, A., & Amann, W. (2009). *Evaluierung der Subjektförderung in Wien* [Evaluation of Housing Benefits in Vienna]. Research study commissioned by the City of Vienna. Vienna: IIBW.

Mundt, A., & Amann, W. (2010). Indicators of an integrated rental market in Austria. *Housing Finance International,* Winter 2010, 35–44. Retrieved from http://iibw.at/documents/2010%20(Art.)%20Amann_Mundt.%20Integrated%20Rental%20Market%20Austria%20(HFI).pdf

Mundt, A., & Amann, W. (2015, May 19). Leistbares Wohnen – Bestandsaufnahme von monetären Leistungen für untere Einkommensgruppen zur Deckung des Wohnbedarfs [Affordable housing: Taking stock of cash benefits to low-income households to cover housing costs]. Study commissioned by the Austrian Federal Ministry of Labour, Social Affairs and Consumer Protection. Vienna: IIBW & BMASK. Retrieved from https://www.sozialministerium.at/cms/site/attachments/0/1/7/CH3434/CMS1459846309034/11_studie_leistbares_wohnen.pdf

Mundt, A., & Springler, E. (2016). Milestones in housing finance in Austria over the last 25 years. In J. Lunde & C. Whitehead (Eds.), *Milestones in European housing finance* (pp. 55–73). Oxford: Wiley-Blackwell. doi:10.1002/9781118929421.ch4

Nordvik, V., & Åhrén, P. (2005). The duration of housing allowance claims and labour market disincentives: The Norwegian case. *European Journal of Housing Policy, 5*(2), 131–146. doi:10.1080/14616710500162608

Norris, M., Healy, J., & Coates, D. (2008). Drivers of rising housing allowance claimant numbers: Evidence from the Irish private rented sector. *Housing Studies, 23*(1), 89–101. doi:10.1080/02673030701731241

OECD. (2013). *OECD economic surveys: Austria 2013*. Paris: OECD. doi:10.1787/eco_surveys-aut-2013-en

OECD. (2015). *OECD economic surveys: Austria 2015*. Paris: OECD. doi:10.1787/eco_surveys-aut-2015-en

Pittini, A. (2012). *Housing affordability in the EU. Current situation and recent trends*. CECODHAS Housing Europe's Observatory Research Briefing, Year 5 (1). Brussels: CECODHAS.

Powell, R. (2015). Housing benefit reform and the private rented sector in the UK: On the deleterious effects of short-term, ideological 'knowledge'. *Housing, Theory and Society*, *32*(3), 320–345. doi:10.1080/14036096.2015.1027830

Pratscher, K. (2015). Bedarfsorientierte Mindestsicherung der Bundesländer im Jahr 2014 [Means-tested minimum income schemes of the Austrian Laender in 2014]. Statistische Nachrichten, *11/2015*, 867–878. Vienna: Statistik Austria.

Priemus, H., & Kemp, P.A. (2004). The present and future of income-related housing support: Debates in Britain and the Netherlands. *Housing Studies, 19*(4), 653–668. doi:10.1080/0267303042000222016

Pryce, G. (1999). Work incentives and rent: Evidence from Glasgow housing associations. *Netherlands Journal of Housing and the Built Environment, 14*(4), 343–362. doi:10.1007/BF02496762

Schoibl, H., & Stöger, H. (2014). Armutsfalle Wohnen. Wohnpolitik und Armutsrisiken [Poverty trap housing: Housing policy and poverty risks]. In N. Dimmel, M. Schenk, & C. Stelzer-Orthofer (Eds.), *Handbuch Armut in Österreich* [Handbook Poverty in Austria] (pp. 309–320). Innsbruck, Vienna, Bozen: Studienverlag.

Statistik Austria (2014). *Wohnen 2013. Tabellenband Mikrozensus-Wohnungserhebung und EU-SILC* [Housing 2013. Microcensus and EU-SILC]. Vienna: Statistik Austria.

Statistik Austria (2015). *Wohnen 2014* [Housing 2014]. Vienna: Statistik Austria.

Stephens, M. (2005). An assessment of the British housing benefit system. *European Journal of Housing Policy, 5*(2), 111–129. doi:10.1080/14616710500162582

Stone, M.E. (2006). What is housing affordability? The case for the residual income approach. *Housing Policy Debate, 17*(1), 151–184. doi:10.1080/10511482.2006.9521564

Stone, M.E., Burke, T., & Ralston, L. (2011). *The residual income approach to housing affordability: The theory and the practice*. Melbourne: AHURI.

Susin, S. (2002). Rent vouchers and the price of low-income housing. *Journal of Public Economics, 83*, 109–152. doi:10.1016/s0047-2727(01)00081-0

Turner, B., & Whitehead, C. (2002). Reducing housing subsidy: Swedish housing policy in an international context. *Urban Studies, 39*(2), 201–217. doi:10.1080/00420980120102920

Turner, B., & Elsinga, M. (2005). Housing allowances: Finding a balance between social justice and market incentives. *European Journal of Housing Policy, 5*(2), 103–109. doi:10.1080/14616710500162574

Walker, B., & Niner, P. (2012). Welfare or work? Low-income working households' housing consumption in the private rented sector in England. *Housing Studies, 27*(3), 381–397. doi:10.1080/02673037.2012.651108

Wieser, R., & Mundt, A. (2014). Housing subsidies and taxation in six EU countries: Trends, structures and recent measures in the light of the global financial crisis. *Journal of European Real Estate, 7*(3), 248–269. doi:10.1108/jerer-01-2014-0006

WKO. (2014). *Immobilienpreisspiegel 2014* [House price monitor 2014]. Vienna: WKO.

Appendix

Table A.1. Housing cost calculation table for single-person household.

Single-person household																		**2014**
50m² apartment																		
Region	Household income (when applying for benefits)	Reasonable housing expenses (RHE) (depending on income) for HB calcualtion	Housing costs (excluding heating and electricity) for a 50m² apartment															Legal minimum non-housing income
			€ 200 (B, C)					€ 300 (LA, UA, ST, VI, T)					€ 400 (VO, S)					
			HB	MI	Σ	Housing costs	RI	HB	MI	Σ	Housing costs	RI	HB	MI	Σ	Housing costs	RI	
B	0	0	0.00	810.49	810.49	200.00	610.49	0.00	814.00	814.00	300.00	514.00	0.00	814.00	814.00	400.00	414.00	610.49
	600	0	0.00	210.49	210.49	200.00	610.49	0.00	214.00	214.00	300.00	514.00	0.00	214.00	214.00	400.00	414.00	
	815	38	150.00	0.00	150.00	200.00	765.00	150.00	0.00	150.00	300.00	665.00	150.00	0.00	150.00	400.00	565.00	
	1090	183	0.00	0.00	0.00	200.00	890.00	42.00	0.00	42.00	300.00	832.00	52.00	0.00	52.00	400.00	742.00	
C	0	0	175.00	638.99	813.99	200.00	613.99	187.50	626.49	813.99	300.00	513.99	200.00	613.99	813.99	400.00	413.99	610.49
	600	0	175.00	38.99	213.99	200.00	613.99	187.50	26.49	213.99	300.00	513.99	200.00	13.99	213.99	400.00	413.99	
	815	0	175.00	0.00	175.00	200.00	790.00	187.50	0.00	187.50	300.00	702.50	200.00	0.00	200.00	400.00	615.00	
	1090	74	76.00	0.00	76.00	200.00	966.00	76.00	0.00	76.00	300.00	866.00	76.00	0.00	76.00	400.00	766.00	
LA	0	0	162.50	647.99	810.49	200.00	610.49	219.00	610.49	829.49	300.00	529.49	275.00	610.49	885.49	400.00	485.49	610.49
	600	0	162.50	47.99	210.49	200.00	610.49	219.00	10.49	229.49	300.00	529.49	275.00	10.49	285.49	400.00	485.49	
	815	40.75	121.75	0.00	121.75	200.00	736.75	178.25	0.00	178.25	300.00	693.25	234.25	0.00	234.25	400.00	649.25	
	1090	190.75	0.00	0.00	0.00	200.00	890.00	28.25	0.00	28.25	300.00	818.25	84.25	0.00	84.25	400.00	774.25	
UA	0	0	135.00	806.60	941.60	200.00	741.60	157.50	884.20	1041.70	300.00	741.70	157.50	888.10	1045.60	400.00	645.60	741.70
	600	0	135.00	206.70	341.70	200.00	741.70	157.50	284.20	441.70	300.00	741.70	157.50	288.10	445.60	400.00	645.60	
	815	0	135.00	0.00	135.00	200.00	750.00	157.50	69.20	226.70	300.00	741.70	157.50	73.10	230.60	400.00	645.60	
	1090	162	0.00	0.00	0.00	200.00	890.00	0.00	0.00	0.00	300.00	790.00	0.00	0.00	0.00	400.00	690.00	
S	0	0	150.00	660.49	810.49	200.00	610.49	182.00	728.49	910.49	300.00	610.49	182.00	828.49	1010.49	400.00	610.49	610.49
	600	12	138.00	72.49	210.49	200.00	610.49	182.00	128.49	310.49	300.00	610.49	182.00	228.49	410.49	400.00	610.49	
	815	85.58	64.43	0.00	64.43	200.00	679.43	139.43	0.00	139.43	300.00	654.43	182.00	13.49	195.49	400.00	610.49	
	1090	228.90	0.00	0.00	0.00	200.00	890.00	0.00	0.00	0.00	300.00	790.00	71.10	0.00	71.10	400.00	761.10	
ST	0	0	143.00	727.49	870.49	200.00	670.49	143.00	857.49	1000.49	300.00	700.49	143.00	866.27	1009.27	400.00	609.27	610.49
	600	0	143.00	127.49	270.49	200.00	670.49	143.00	257.49	400.49	300.00	700.49	143.00	266.27	409.27	400.00	609.27	
	815	0	143.00	0.00	143.00	200.00	758.00	143.00	42.49	185.49	300.00	700.49	143.00	51.27	194.27	400.00	609.27	
	1090	106	37.00	0.00	37.00	200.00	927.00	37.00	0.00	37.00	300.00	827.00	37.00	0.00	37.00	400.00	727.00	
T	0	RHE var.	200.00	650.49	850.49	200.00	650.49	242.00	728.49	970.49	300.00	670.49	225.00	865.49	1090.49	400.00	690.49	610.49
	600	RHE var.	200.00	50.49	250.49	200.00	650.49	242.00	128.49	370.49	300.00	670.49	225.00	265.49	490.49	400.00	690.49	
	815	RHE var.	197.00	0.00	197.00	200.00	812.00	242.00	0.00	242.00	300.00	757.00	225.00	50.49	275.49	400.00	690.49	
	1090	RHE var.	120.00	0.00	120.00	200.00	1010.00	170.00	0.00	170.00	300.00	960.00	170.00	0.00	170.00	400.00	860.00	
VO	0	0	0.00	812.86	812.86	200.00	612.86	0.00	912.86	912.86	300.00	612.86	0.00	1012.86	1012.86	400.00	612.86	612.86
	600	0	210.00	2.86	212.86	200.00	612.86	285.00	27.86	312.86	300.00	612.86	335.00	77.86	412.86	400.00	612.86	
	815	0	210.00	0.00	210.00	200.00	825.00	285.00	0.00	285.00	300.00	800.00	335.00	0.00	335.00	400.00	750.00	
	1090	98.10	111.90	0.00	111.90	200.00	1001.90	186.90	0.00	186.90	300.00	976.90	236.90	0.00	236.90	400.00	926.90	
VI	0	85.50	0.00	813.99	813.99	200.00	613.99	0.00	910.49	910.49	300.00	610.49	0.00	914.71	914.71	400.00	514.71	610.49
	600	85.50	0.00	213.99	213.99	200.00	613.99	96.51	213.99	310.50	300.00	610.50	184.00	226.49	410.49	400.00	610.49	
	815	85.50	64.50	0.00	64.50	200.00	679.50	139.50	0.00	139.50	300.00	654.50	184.00	11.49	195.49	400.00	610.49	
	1090	188	0.00	0.00	0.00	200.00	890.00	37.00	0.00	37.00	300.00	827.00	81.50	0.00	81.50	400.00	771.50	

Source: Own computation based on regional housing subsidy and MI legislation, expert interviews.
Abbreviations: B = Burgenland, C = Carinthia, LA = Lower Austria, UA = Upper Austria, S = Salzburg, ST = Styria, T = Tyrol, VO = Vorarlberg, VI = Vienna; HB = housing benefit, MI = minimum income, RI = residual income.

Table A.2. Housing cost calculation table for household with two adults and three children.

Household with two adults and three children																						2014
100m² apartment																						
Region	Household income (when applying for benefits)	Reasonable housing expenses (RHE) (depending on income) for HB calcualtion	Housing costs (excluding heating and electricity) for a 100m² apartment																		Legal minimum non-housing income	
			€ 500					€ 700					€ 900									
			HB	MI	Σ	Housing costs	RI	HB	MI	Σ	Housing costs	RI	HB	MI	Σ	Housing costs	RI					
B	0	0	0,00	1689,00	1689,00	500,00	1189,00	0,00	1689,00	1689,00	700,00	989,00	0,00	1689,00	1689,00	900,00	789,00					1266,76
	800	0	0,00	889,00	889,00	500,00	1189,00	0,00	889,00	889,00	700,00	989,00	0,00	889,00	889,00	900,00	789,00					
	1661	290,68	84,33	0,00	84,33	500,00	1245,33	179,33	0,00	179,33	700,00	1140,33	179,33	0,00	179,33	900,00	940,33					
	2231	390,43	0,00	0,00	0,00	500,00	1731,00	79,58	0,00	79,58	700,00	1610,58	79,58	0,00	79,58	900,00	1410,58					
C	0	0	332,50	1328,06	1660,56	500,00	1160,56	357,50	1303,04	1660,54	700,00	960,54	382,50	1278,04	1660,54	900,00	760,54	1245,41				
	800	0	332,50	528,05	860,55	500,00	1160,55	357,50	503,08	860,58	700,00	960,58	382,50	478,04	860,54	900,00	760,54					
	1661	105	165,40	0,00	165,40	500,00	1326,40	165,40	0,00	165,40	700,00	1126,40	165,40	0,00	165,40	900,00	926,40					
	2231	447	0,00	0,00	0,00	500,00	1731,00	0,00	0,00	0,00	700,00	1531,00	0,00	0,00	0,00	900,00	1331,00					
LA	0	0	381,00	1401,64	1782,64	500,00	1282,64	494,00	1336,98	1830,98	700,00	1130,98	550,00	1336,98	1886,98	900,00	986,98	1336,98				
	800	0	381,00	601,64	982,64	500,00	1282,64	494,00	536,98	1030,98	700,00	1130,98	550,00	536,98	1086,98	900,00	986,98					
	1661	0	381,00	0,00	381,00	500,00	1542,00	494,00	0,00	494,00	700,00	1455,00	550,00	0,00	550,00	900,00	1311,00					
	2231	223	158,00	0,00	158,00	500,00	1889,00	271,00	0,00	271,00	700,00	1802,00	327,00	0,00	327,00	900,00	1658,00					
UA	0	0	200,00	1864,30	2064,30	500,00	1564,30	200,00	1864,30	2064,30	700,00	1364,30	200,00	1864,30	2064,30	900,00	1164,30	1717,90				
	800	0	200,00	1064,30	1264,30	500,00	1564,30	200,00	1064,30	1264,30	700,00	1364,30	200,00	1064,30	1264,30	900,00	1164,30					
	1661	0	200,00	203,30	403,30	500,00	1564,30	200,00	203,30	403,30	700,00	1364,30	200,00	203,30	403,30	900,00	1164,30					
	2231	0	200,00	0,00	200,00	500,00	1931,00	200,00	0,00	200,00	700,00	1731,00	200,00	0,00	200,00	900,00	1531,00					
S	0	0	182,00	1746,56	1928,56	500,00	1428,56	182,00	1946,56	2128,56	700,00	1428,56	182,00	2146,56	2328,56	900,00	1428,56	1428,56				
	800	0	182,00	946,56	1128,56	500,00	1428,56	182,00	1146,56	1328,56	700,00	1428,56	182,00	1346,56	1528,56	900,00	1428,56					
	1661	74,75	182,00	85,56	267,56	500,00	1428,56	182,00	285,56	467,56	700,00	1428,56	182,00	485,56	667,56	900,00	1428,56					
	2231	290,03	84,97	0,00	84,97	500,00	1815,97	182,00	0,00	182,00	700,00	1713,00	182,00	0,00	182,00	900,00	1513,00					
ST	0	0	247,00	1666,71	1913,71	500,00	1413,71	247,00	1793,63	2040,63	700,00	1340,63	247,00	1793,63	2040,63	900,00	1140,63	1263,71				
	800	0	247,00	866,71	1113,71	500,00	1413,71	247,00	993,63	1240,63	700,00	1340,63	247,00	993,63	1240,63	900,00	1140,63					
	1661	169,58	77,42	175,29	252,71	500,00	1413,71	77,42	302,21	379,63	700,00	1340,63	77,42	302,21	379,63	900,00	1140,63					
	2231	454,58	0,00	0,00	0,00	500,00	1731,00	0,00	0,00	0,00	700,00	1531,00	0,00	0,00	0,00	900,00	1331,00					
T	0	RHE var.	15,00	2105,12	2120,12	500,00	1620,12	136,00	2224,12	2360,12	700,00	1660,12	133,00	2387,12	2520,12	900,00	1620,12	1520,12				
	800	RHE var.	15,00	1305,12	1320,12	500,00	1620,12	136,00	1424,12	1560,12	700,00	1660,12	133,00	1587,12	1720,12	900,00	1620,12					
	1661	RHE var.	15,00	444,12	459,12	500,00	1620,12	136,00	563,12	699,12	700,00	1660,12	133,00	726,12	859,12	900,00	1620,12					
	2231	RHE var.	0,00	0,00	0,00	500,00	1731,00	101,00	28,12	129,12	700,00	1660,12	126,00	163,12	289,12	900,00	1620,12					
VO	0	0	0,00	1949,40	1949,40	500,00	1449,40	0,00	2149,40	2149,40	700,00	1449,40	0,00	2349,40	2349,40	900,00	1449,40	1449,40				
	800	0	396,00	753,40	1149,40	500,00	1449,40	645,00	704,40	1349,40	700,00	1449,40	670,00	879,40	1549,40	900,00	1449,40					
	1661	481,69	362,12	0,00	362,12	500,00	1523,12	512,12	0,00	512,12	700,00	1473,12	537,12	151,28	688,40	900,00	1449,40					
	2231	too high	0,00	0,00	0,00	500,00	1731,00	0,00	0,00	0,00	700,00	1531,00	0,00	118,40	118,40	900,00	1449,40					
VI	0	0	0,00	1912,99	1912,99	500,00	1412,99	0,00	1912,99	1912,99	700,00	1212,99	0,00	1912,99	1912,99	900,00	1012,99	1575,08				
	800	171,00	194,75	1080,32	1275,07	500,00	1575,07	354,00	1112,99	1466,99	700,00	1566,99	368,00	1112,99	1480,99	900,00	1380,99					
	1661	171,00	194,75	219,32	414,07	500,00	1575,07	354,00	251,99	605,99	700,00	1566,99	368,00	251,99	619,99	900,00	1380,99					
	2231	340,11	34,33	0,00	34,33	500,00	1765,33	184,33	0,00	184,33	700,00	1715,33	198,33	0,00	198,33	900,00	1529,33					

Source: Own computation based on regional housing subsidy and MI legislation, expert interviews.
Comments: B = Burgenland, C = Carinthia, LA = Lower Austria, UA = Upper Austria, S = Salzburg, ST = Styria, T = Tyrol, VO = Vorarlberg, VI = Vienna; HB = housing benefit, MI = minimum income, RI = residual income.