10 "Wiener Wohnbauinitiative"

A new financing vehicle for affordable housing in Vienna, Austria

Alexis Mundt and Wolfgang Amann

Introduction

Austria has a long tradition of supply-side housing subsidies directed at individual families developing their own single-family housing and, in the multi-apartment sector, Limited-Profit Housing Associations (LPHAs). These associations construct and manage mainly rental apartments with long-term leases, based on cost-rents and targeted at low- and middle-income households. By this channel, the nine Austrian regions were able to set up a large and internationally acknowledged social rental housing sector (Lawson, Gilmour, & Milligan, 2010; Deutsch & Lawson, 2012; Mundt & Amann, 2010; Reinprecht, 2014).

As for Vienna, which is the Austrian capital and a region in its own right, this traditional subsidy scheme was lately expanded by a new scheme, the so-called *Wohnbauinitiative* (WBI), initiated by the municipality of Vienna in 2011 and continued in a new programme in 2015. It is meant additionally to encourage multi-apartment housing construction and address overshooting housing demand in the city.

The background for this initiative is strong population growth and increasing pressure on the general rent level. Vienna is growing much stronger than previously planned and housing construction targets are periodically scaled up: in 2011, when the WBI was started, the quantitative aim was calculated at 7,500 new dwellings each year, a noticeable increase on former targets. In 2016 the quantitative aim was raised to 13,000 new dwellings per year, out of which some 9,000 are planned to be subsidised units and the rest market-financed projects (Stadt Wien, 2016). With these ambitious quantitative targets, the city's administration is reacting to a strong increase in housing demand due to household formation, and internal and external immigration into the city (Prenner, 2014). Likewise, it shows an ongoing commitment to a high share of subsidised units in overall construction (Lawson, 2010; Reinprecht, 2014). Vienna nowadays is a rental city with an internationally extraordinary large share of social housing. According to the microcensus 2014 (on main residency dwellings), some 20 per cent of all tenures are owner-occupied houses and flats, some 76 per cent are rental flats and 4 per cent are other tenures. The rental sector is formed by privately rented flats (32 per cent), LPHA rental flats (19 per cent) and the still large stock of municipal rental flats (25 per cent). The last two categories can be considered the social rental sector, that is 44 per cent of all tenures (see Mundt & Amann, 2010). With this large market share of social housing, the Austrian, and especially the Viennese, rental market comes close to what Jim Kemeny (1995; Kemeny, Kersloot, & Thalmann, 2005) has identified as a "unitary rental market", a market where the non-profit housing segment is competitive, provides good market coverage and, therefore, shows a rent-dampening influence on the overall rent level. In a "unitary rental market" the private and the social market segments compete with each other, because they both address large population groups, provide similar qualities and reach sufficiently large volumes. How these interrelations are realised in the Austrian rental market has recently been demonstrated by Mundt and Amann (2010). The book chapter at hand will address how the municipality of Vienna reacts to current challenges to a "unitary rental market" in Austria that are emerging due to insufficient new social housing construction and a widening gap between social and private market rents.

Rental costs are lower in the social housing sector than in the private rental market. They are usually based on historic construction costs. Municipal rental flats in 2015 cost on average 6.4€/m², LPHA rental flats 6.7€/m² and private market rents 8.7 €/m² (Statistik Austria, 2016, p. 46). Especially market rents have increased very strongly during the last ten years and the availability of affordable rents on the market has lessened considerably. This has created an insider-outsider problem on the rental market: while long-term resident households still benefit from low historic rents and secure contracts, newcomers to the rental market face prohibitively high private market rents and fewer social housing options. Access to new LPHA housing is often restricted by high capital contributions demanded from future tenants. These contributions are repaid if the tenant moves out (minus 1 per cent p.a.), but, as many social tenants have few savings, constitute a considerable barrier to LPHA housing. They can reach a level of 100-500 €/m². The municipality of Vienna offers individual low interest loans to households who struggle with meeting required capital contributions. Income limits to qualify for these loans are however very low and only a limited number of households receives them.

The WBI was initiated in 2011 to quickly expand housing construction by adding housing units that receive some, but compared to existent regional schemes, less public subsidies. It demands less capital contributions from future tenants. The scheme was reinitiated in 2015 when quantitative targets for housing completions were further expanded. From its very beginning, the scheme was designed to widen, and not to replace, existing regional subsidy schemes. It adds another layer to housing supply, focusing on middle-income households and a mid-price range, as will be described in detail below.

This contribution builds on our analyses of available data and documents on the WBI. Additionally, several personal interviews with policy practitioners and builders were conducted to retrieve important information on the functioning and organisation of the WBI, and to be able to present some current housing projects. Also, the interview partners were asked about their views of pros and cons of the WBI.

Context and governance framework

From a historical perspective, it is typical that the share of subsidised units in overall completions is very high. This is true for all Austrian regions and especially for Vienna (Amann, Jurasszovich, & Mundt, 2016). Out of some 9,500 overall completions in 2014, some 6,500 units were subsidised (roughly two-thirds), including some 800 units within the WBI scheme. Looking at the total housing stock in Vienna, the city claims that 62 per cent of the Viennese population lives in subsidised housing of various types (Förster & Menking, 2016, p. 7).

In 2004, Vienna city council stopped building new housing projects directly through municipal companies (municipal housing was re-introduced in 2016 as another measure to abate housing shortage) and relied more on organisations of the private sector to construct affordable rental housing. First and foremost, these are the LPHAs. But also (national and international) commercial developers have access to subsidies if they comply with stipulations of the Viennese Housing Construction Subsidy Law (from 1989 in its current form of 27 February 2017), especially concerning restricted access (income limits), ecological standards and other quality criteria.

Competition between developers increased since 1995 with the implementation of Bauträgerwettbewerbe, public housing development competitions organised by the Wohnfonds Wien, the Vienna fund for housing construction and urban renewal. These competing bids, often for large-scale projects on land provided by the fund, are open to all developers. Smaller housing projects may also be submitted by all developers to the Grundstücksbeirat (Land Advisory Board), which assesses the projects according to a point system on four major categories: economic aspects (land costs, total building costs, user costs and contract conditions etc.), ecology (climate- and resource-friendly construction, diversity of use of green and open spaces, etc.), architecture (structure of the building, design, etc.) and social sustainability (suitability for day-to-day use, cost reduction through planning, living together in communities, etc.). This competitive assessment of applicant projects is known as the four-pillars-model (wohnfonds_ wien, 2015; Förster & Menking, 2016). The emergent projects are characterised by very high quality standards, e.g. concerning energy efficiency; often higher than in commercial new construction (Amann, Hüttler, & Mundt, 2012). The International Building Exhibition in Vienna in 2022 (Internationale Bauausstellung, IBA) will address the Viennese model of urban development and the role limited-profit housing plays within it.

In spite of the strict stipulations of the call for tender, competition in the tender procedures is fierce since there are fewer and fewer projects to compete on. Lately, the functionality of the existent two instruments has decreased, due to a general reduction of available subsidies and the difficulties for developers

obtaining building plots that meet the maximum price requirement of the land advisory board (Mundt, 2013). The Vienna fund for housing construction and urban renewal still has considerable reserves, but only releases them to the competitions step by step (Förster & Menking, 2016).

The WBI was introduced as a new subsidy scheme with easier access criteria. At the same time, it keeps up public influence on the quality and price level of housing projects. The WBI dwellings add a new layer to the variety of subsidised housing completions in Vienna.

Table 10.1 depicts the different layers of new multi-apartment housing completions in Vienna and summarises the existent subsidy programmes and market-financed housing completions in dependence of the achieved rent level, tenants' capital contribution and access criteria. The figure focuses on multi-apartment new construction, where most new construction takes place. Only a much smaller part is single-family houses and new dwellings in existing buildings.

The middle layer of new construction is formed by the "regular" subsidy programmes, projects selected by the land advisory board or housing development competitions. Income limits are fairly high in order to enable a strong social mix. They are €44,700 net yearly income for a single person and €66,610 for two adults (2017). The fairly recently introduced construction layers below the middle layer consist of different subsidy schemes in which an additional loan by the administration enables lower rents for households that fall into lower income brackets (*Superförderung*). Most of these apartments are in the SMART format: these are small apartments with efficient floor plans and capital contributions that are much lower than in the regular schemes. Access criteria are stricter and income limits are lower if the full subsidy is claimed. Also, urgent housing need has to be proven, similar to municipal apartments. New municipal apartments receive the highest subsidy and enable the lowest rent level in new construction. As an additional benefit, there are no capital contributions for future tenants.

Social mix being a fundamental aim of the Viennese planning and housing administration, it is nowadays general practice that different layers of housing construction are realised within the same building. Projects usually combine different subsidy schemes with some market-financed apartments.

Market-financed new construction by commercial developers and by LPHAs has increased strongly in the last years. If LPHAs build without public subsidies and rely fully on market finance, they also have to charge cost-rents, but these will reach a higher level compared to subsidised projects. Commercial developers cover mainly the prime segment: rent levels will nowadays be clearly above 12 €/m². There are usually no capital contributions.

The large share of subsidised new apartments in overall output requires continuous and large public support. On average between 2010 and 2014, Vienna spent some €570 million on housing subsidisation within its regional housing budgets each year. Some 46 per cent of these expenses are loans for subsidised multi-apartment construction, some 39 per cent go to subsidised renovations

Table 10.1 Layers of multi-apartment housing completions in Vienna

Layers of multi-apartment housing completions in Vienna	Rent level (gross), €/m² approx.	Tenant contribution \notin/m^2 approx.	Income limits and access criteria		
Market financed (commercial developers)	12–25	0	No	A	
Market financed (LPHAs)	9–12	approx. 500	No		
Wohnbauinitiative 2011 (variant 1)	9.30	150	No, but 50% of new allocations through city administration		
Wohnbauinitiative 2011 (variant 2)	7.70	500	No, but 50% of new allocations through city administration	Tendency to higher	
Subsidised apartments in "regular" subsidy schemes (land advisory board or housing development competitions)	7.5–8.00	max. 500	Fairly high	rents, and at the same time less public subsidies	
Subsidised apartments with "Superförderung"	8–8.50	69.21	Fairly high, lower if income dependent additional subsidy		
Subsidised apartments with "Superförderung" (SMART)	7.50	max. 60	As above + proven urgent housing need		
New municipal housing construction	7.50	0	As above + proven urgent housing need		

Sources: own depiction based on housing construction, regional subsidy statistics; Personal communication – Teschl, 1 March 2016; Liske and Liske-Weninger, 14 April 2016; Aigner-Tax, 22 April 2016; Langmann, 28 April 2016; Glaser, 10 May 2017; Welzig, 15 May 2017.

Note

The gross rent level includes all rents, overhead building charges, taxes, but no energy costs.

and refurbishments. Thirteen per cent are means-tested housing benefits and only some 2 per cent are subsidised loans to households building their own single-family housing. Over the last decade there has been a shift of housing policy expenses towards a stronger focus on multi-apartment buildings, on new construction and refurbishments. The years 2011 and 2012 were exceptions because Viennese housing subsidy expenses were much lower than on average (Amann, Jurassovich & Mundt, 2015). This short-term reduction in subsidy expenses was also reflected in the number of subsidised new units in the multi-apartment stock: from an average level of around 6,300 yearly subsidised units between 2007 and 2010, there was a decline to only 2,500 units in 2011 and 4,800 units in 2012. During these two years, austerity measures had to be taken by the city council that also affected subsidised housing output. Since then, the number has increased again, to the highest level in the past 20 years in 2014, with over 9,100 subsidised units (Amann et al., 2016).

A large part of this recovery can be attributed to the WBI dwellings, which entered the statistics with 3,300 subsidised dwellings in 2013 and 2014. In coming years, more WBI dwellings will be completed and a sum of around 6,300 dwellings will be reached.

Other than the regional subsidy expenses, the WBI loan the city provided was not financed out of yearly regional budgets but came from an additional loan. In 2011, Vienna, in its capacity as a municipality, took out a loan of $\ensuremath{\epsilon}300$ million via the Austrian Treasury which was earmarked for the WBI and passed on to the participating consortia.

What is the innovation and how does it work?

The WBI is a subsidy scheme by the municipality of Vienna which provides medium-term, low interest loans and/or cheap building land for housing construction. It is an addition to the general regional housing subsidy schemes, in place in Vienna for many decades. It encourages new construction in the midprice range, granting financial benefits in exchange for limited-term social obligations by the developers concerning rent levels and access criteria.

The WBI encourages innovative elements in subsidy arrangements: the orientation on both commercial and LPHA housing providers, the inclusion of capital from institutional investors, municipal building plots and medium-term municipal loans, and the limited-term nature of rent control for new contracts.

The first wave of the WBI was initiated in 2011. It was addressed at consortia of developers (LPHA and/or commercial) and financial institutions (banks, insurance companies), with the aim fostering co-financing of social housing by financial institutions. The main idea is to use beneficial finance conditions granted to the City of Vienna, as a low-risk, highly rated borrower, towards building consortia, which then pass on the benefit to tenants through cheaper than market rents and long-term secure rental contracts.

The City of Vienna stipulated the requirements for participating in the scheme in its 2011 call for tender (MA 50, 2011):

- Some municipal building plots would be sold to the consortia at a belowmarket price (around 235€/m²). The market rate is at least double that price. These plots are additional to the reserves held by the Vienna fund for housing construction and urban renewal which are designated for the regular regional subsidy schemes (housing-development competitions and land advisory board) (Stadt Wien, 2011).
- Loans of 800 €/m² usable floor space would be provided by the municipality, in the form of bullet loans and with an interest of 3.9 per cent for ten years (fixed term). These loans would be second rank in banking collateralisation, making additional commercial loans cheaper (see section below on finance).

In exchange for these privileges, the participating consortia would meet the following requirements:

- Own equity by the developers has to be at least 350 €/m² usable floor space.
- Financial partners have to invest at least €75,000 per completed dwelling.
- During the loan term (ten years) rent levels and capital contributions by future tenants are limited. There are two variants: 6.10 €/m² net rents and maximum 150€/m² capital contributions by tenants (repayable minus 1 per cent p.a. when the tenant moves out); or $4.75 \, \text{e/m}^2$ net rents and maximum 500 €/m² capital contributions by tenants.
- The allocation of 50 per cent of all completed dwellings, and 50 per cent of all re-allocations of dwellings during the loan term will be conducted by the general allocation agency for subsidised housing, the Wiener Wohnberatung (Vienna housing helpdesk). It allocates the dwellings according to social criteria and general waiting lists. However, there are no income limits as in other subsidy schemes (see Table 10.1).
- The remaining 50 per cent of allocations will be carried out by the developers themselves. However, all rental contracts have to be of an unlimited term. For sitting tenants, during their tenancy, rental rates will only be valorised with overall inflation as measured by the consumer price index. Only for new allocations, and after the public loan term of ten years has expired, can commercial developers charge higher market rents. They can also offer these dwellings for sale then. LPHAs who build WBI apartments have to charge cost-rents throughout the entire existence of the building.

The initial call was set up for some 6,300 new dwellings following this scheme to be built between 2012 and 2015. Overall investment would account for approximately €1 billion (Stadt Wien, 2012). Due to good experience with the new subsidy scheme, a second wave of the WBI was initiated in 2015 (see below).

The city's influence on the quality of submitted projects is secured through a special advisory board that evaluates the projects and proposes improvements, much like in the other subsidy programmes (WBI advisory board, see below).

Altogether the WBI 2011 will yield some 35 projects. The project size ranges from 13 units to around 450 units. More than two-thirds of all WBI 2011 projects are already completed, the others are still in the pipeline. The projects are located throughout the city with larger projects mainly in the current urban development areas, with a focus on "Seestadt Aspern" (see below).

Who is involved?

Region and municipality of Vienna

Vienna holds a special position as it is a region and a local entity (municipality) at the same time. Therefore, in addition to the regional housing subsidy agendas, it has special leeway to apply municipal measures as well as regional policy instruments. For example, other regions often do not hold land banks as Vienna does, only some municipalities in certain regions apply that instrument. The WBI is also a "municipal" measure in addition to the regular housing subsidy schemes that fall in the "regional" competence of Vienna. Vienna was the main player in the WBI scheme: it proposed the WBI, initiated the call for tender, financed the subsidy part of the scheme and provided cheaper than market building plots.

Consortia of developers and financial investors

To participate in the first round of the WBI, participants had to be consortia formed by housing developers and financial investors. It was the intention to activate the national financial industry (banks and insurance companies) to play a stronger part in the financing of affordable housing construction. The plan was successful in as much as six consortia of housing developers and financial investors emerged and participated in the call.

The consortia were formed of one or more LPHAs or commercial developers together with at least one bank or housing construction bank (Stadt Wien, 2011). These consortia qualified for participating in the WBI scheme, i.e. partly receiving cheap municipal building land and additionally qualifying for the subsidised municipal loans.

The involved developers are mainly LPHAs, but also their commercial daughter companies, and/or commercial developers. Since the Global Financial Crisis, social housing has become more interesting as a long-term and low-risk investment with relatively low, but stable yield. Institutional investors have gained importance in financing social housing construction in several European countries (Oxley et al., 2015).

Limited-profit housing associations

LPHAs in Austria date back to the early twentieth century and continuously gained importance since the 1950s. The main idea is the setting up of a

long-term social housing stock at below-market cost-rents directed at large parts of the population (Mundt & Amann, 2010). Today, 189 LPHAs are active in Austria, some as co-operatives others as limited-profit companies, but within a common legal scheme and supervisory structure. Currently 53 of all LPHAs have their headquarters and main focus of activity in Vienna. LPHAs have continuously increased their importance and have incremented their tenure share due to strong construction output. The LPHA housing stock plays a crucial role as affordable housing choices throughout the lifespan of households (Deutsch, 2009).

LPHAs have to focus on housing construction, refurbishment and housing management. In fact, it is a strong incentive for high construction quality and social balance if housing associations function as long-term managers. LPHAs are private sector enterprises that are geared towards fulfilling the demand for affordable housing, but which nevertheless act in an economically rational manner (Ludl, 2007; Lawson et al., 2010). Profits have to be reinvested in the sector. LPHAs have to be registered and are strongly audited. The sector itself conducts a first auditing procedure on a yearly basis, the respective regional governments are auditing authorities on a second level. LPHAs nowadays mainly build rental apartments, partly with a right to buy (after 10 or 15 years). In Vienna, they nowadays also build without regional subsidy loans but with market finance. Cost-rents apply nevertheless. For market-financed activity, some LPHAs have also set up commercial daughter companies (Pech, 2014).

Housing Construction Banks (Wohnbaubanken)

Taking up activity in 1994, their main task is to provide developers of affordable housing with medium- to long-term low-interest loans. Housing Construction Banks refinance themselves by the issuance of Housing Construction Convertible Bonds (HCCB) directed at private investors. These bonds benefit from tax advantages and are highly popular due to security of investment. Placing of the bonds continuously increased between 1994 and 2004 and peeked in 2004 and 2007. In 2007 €2.3 billion could be raised by the placement of HCCB. Since the Global Financial Crisis, HCCB have lost some appeal and new emissions bottomed in 2012, gaining importance again in 2013. Finance raised by HCCB has to be invested in subsidised housing projects. Most subsidised housing projects were therefore co-financed by these funds (Schmidinger, 2008, p. 264; Amann, Lawson, & Mundt, 2009; Lawson, Milligan, Yates, Amann, & Kratschmann, 2012). At the end of 2012, the volume of outstanding loans was around €14 billion. There are six Housing Construction Banks active in Austria today. Housing Construction Banks also participated in the consortia of the 2011 WBI call and also channelled additional finance raised through HCCB into WBI projects. This is yet another example of how the WBI initiative fits into an existent institutional framework which seems to contribute to the scheme's success.

WBI advisory board

The City of Vienna has had good experiences with implementing advisory boards for safeguarding the quality of subsidised housing projects. These advisory boards come in various forms and sizes, but usually include experts from different fields, some strongly linked to the city council and its various departments others more independent (architects, urban and land-use planners, building experts, ecologists, etc.) (Brech, 2012).

The WBI advisory board is with six standing members relatively small compared to advisory boards in other subsidy schemes but includes partly the same people. It is headed by a representative of the housing subsidy department of the city council (Brech, 2012, p. 120).

The WBI advisory board's sessions are rather flexible and the board can convene on short-term notice, which is also seen as a big benefit as it speeds up the process (Personal communication Liske & Liske-Weninger, 14 April 2016). The feedback of the advisory board to the developers and planners is more personal and immediate than in the more formalised advisory board sessions of other subsidy schemes. Necessary amendments and possible improvements are communicated directly after the sessions. A civil engineering consulting company (DI Herbert Liske) is in charge of organising and documenting the board's sessions and pre-evaluating the submitted projects.

As in the regular housing construction schemes, WBI projects are evaluated following the mentioned four-pillars-model (economic aspects, ecology, architecture, social sustainability). The economic aspects are however evaluated less competitively than in the other subsidy schemes because participants do not compete on overall construction costs but fulfil the requirement of economic efficiency if the proposed projects meet the above-mentioned criteria of maximum rents and capital contributions. This is seen as a main advantage and functions as an incentive for participants, who are reluctant or unable to take part in the highly competitive development competitions of the regular regional subsidy schemes (Personal communication Liske & Like-Weninger, 14 April 2016; Personal communication Langmann, 28 April 2016).

Finance

Table 10.2 summarises the cornerstones of the WBI schemes and their financial elements. All loans are bullet loans and have to be repaid at the end-term of the loan including interest, similar to a bond (Stadt Wien, 2011). Interest payments are included in cost rents starting with the first year. However, maximum rents are limited during the loan term.

WBI loans are cheap money for the developers and help them in the building process. The fact that the city's loans are secured only in second rank, makes additional market finance less expensive. Banks can secure their loans in first rank and also interpret the city's involvement as a guarantee of the projects' financial soundness. The city's scrutiny of subsidised projects throughout the

	Volume of (municipal) loans	Dwellings	Interest rate	Loan term	Refinancing
WBI 2011	c. € 230 million	6,300	3.9% fixed, bullet loan	10	Extra loan through Austrian Treasury (OeBFA)
WBI 2015	c. € 100 million	t.b.d. approx. 1,800	2.5% fixed, bullet loan	10	Taxes, i.e. regional budget

Table 10.2 WBI volumes and financial details

Source: personal communication – Teschl, 1 March 2016 and Liske and Liske-Weninger, 14 April 2016; MA 50, 2011.

quality procedures encourages the involvement of financial investors and banks as it adds security.

The city itself refinanced the loan via the Austrian Treasury, which manages public sector debt, with the same interest rate it passed on to the consortia (including liability fees) (Personal communication Teschl, 1 March 2016).

While the loan conditions sounded very promising in 2011 when the call was initiated, a strongly declining international interest rate environment increased the availability of even cheaper market loans for housing developers. This led to the fact that not all developers in the end took up the offered municipal loans. The remaining €70 million that were not taken up by the consortia were used to refinance existing housing construction loans, which for historic reasons still had very high fixed interest rates (Personal communication Teschl, 1 March 2016).

In the new wave of the WBI, which was agreed in 2015, the parameters of the loans were adapted to reflect the recent interest rate development. Now the loans will charge a fixed annual interest of 2.5 per cent for ten years. At the same time, the maxima of capital contributions and rent levels were left unchanged and not adapted to inflation. The first projects of the WBI 2015 were realised similar to WBI 2011 projects (Personal communication Teschl, 1 March 2016). However, there are considerations to integrate the new format into the regional subsidy schemes and thus to become a regular subsidy arrangement.

As the City of Vienna channelled cheap finance to housing developers, the city itself is responsible for loans being paid back in due time and that the risks involved are minimised. The following elements reduce these risks:

- The call was directed at consortia, so that risk is spread across more developers and financial institutions (Personal communication Langmann, 28 April 2016; Personal communication Teschl, 1 March 2016). At the same time, financial involvement is less pronounced if discounted building land is provided by the city itself.
- Many LPHAs are involved. They have a very high credit rating due to the LPHA housing sector they are embedded in (Amann et al., 2009).

After the sector's own auditing and control framework for all LPHAs, the City of Vienna is the second supervisory body over all LPHAs based in Vienna. The city therefore has a very clear idea of their financial situation. There is no additional formal guarantee or underwriting from the City of Vienna.

The completed dwellings are usually cheaper than the market and in the
current situation, allocation and marketing of the dwellings is not an issue,
reducing thus the risk of vacancies. Most WBI dwellings are highly popular
with clients and quickly taken up (Personal communication Aigner-Tax,
22 April 2016). The developers can advertise and allocate 50 per cent of all
completed dwellings on their own account.

Table 10.3 summarises differences in costs and finance components between typical WBI projects as opposed to strictly market-financed projects. Building plots are much more expensive under market conditions and also construction costs are higher, due to usually smaller construction sights and missing incentives to keep construction costs low. Since WBI loans are not available, commercial loans play a much larger part in financing the construction. Such loans show less favourable and longer terms than WBI loans. Own equity by developers usually cover building plot costs, while tenants' capital contributions are usually higher in market-financed projects than in WBI schemes. As a result, rents in market-financed projects are much higher than in WBI projects. Differences vary across specific projects and locations but can easily amount to 2 ϵ /m² (monthly rent) (Personal communication Stephan Langmann, 13 March 2018).

The WBI has had repercussions on federal housing policy as the federal state of Austria initiated a similar scheme, much inspired by the Viennese WBI. A federal *Wohnbauinvestitionsbank* (WBIB), a housing construction investment

Table 10.3 Financing examples

	Example WBI project: costs and finance based on m ² useable floor space	Example market-financed project: costs and finance based on m ² useable floor space
Building plot (incl. preparation)	€350	€900
Construction costs	€1,750	€2,300
Overall costs	€2,100	€3,200
Own equity developer	€350	€900
WBI loan	€800	€0
Tenants' capital contribution	€400	€500
Other loans (housing construction banks and commercial banks)	€550	€1,800
Overall finance	€2,100	€3,200

Source: personal communication Langmann, 13 March 2018; own calculation.

bank, was set up in autumn 2016. Once in operation, it will finance the planned "federal housing construction initiative" with a volume of €5.75 billion. In this process, the bank will channel €700 million of funds from the European Investment Bank into affordable housing, and necessary infrastructure, throughout Austria. Long-term low and stable interest rates for housing construction are the main drivers.

Examples of the innovation

Seestadt Aspern

Seestadt Aspern is Vienna's most dynamic urban development area and among the largest in Europe. It is located at the north-eastern part of the city on and around the site of a former airport and measures 240 ha. It is conceived for 20,000 inhabitants and around 8,000 housing units. The general development plan was designed by the Swedish architect Johannes Tovatt and approved by the municipal council in 2007.

Seestadt Aspern will be realised in three stages (see Figure 10.1) (MA 18, 2012):

- first stage (2009–2017): planning and greenspace completion, centrally located lake, technical infrastructure including a new metro line, first building phase with 2,500 dwellings and 300 student homes, offices, commerce.
- second stage (2017–22): further development areas on the northern part of the lake, with housing and mixed usage, access to the train station.
- third stage (from 2022): increase in density and urbanisation around the train station, settling of further businesses, cultural and leisure infrastructure.

The first phase of construction is already completed (especially the southern part). The main idea was to combine different regional subsidy schemes and market-financed housing construction in the area to attract different income groups and foster social inclusion and social mix. The completed dwellings will belong to different layers of housing supply as outlined in the section on "Context and governance framework", above: from more expensive, completely marked-financed housing to highly subsidised and much cheaper housing, originating from housing-development competitions. The mix of social and functional qualities, the prioritising of public transport and climate neutrality through renewable energy (solar, photovoltaic panels) are driving ideas of the master plan (Förster & Menking, 2016, pp. 104–109). From the very beginning, the planning process was very inclusive and involved several stages (Brech, 2012). While experts, architects, city planners and the general public were involved during the planning phase, the ongoing participation process also involves the resident population and potential future inhabitants.

A large part of the new dwellings will originate from the WBI. There are some 14 projects with altogether around 1,600 dwellings, i.e. around 27 per cent



Figure 10.1 Stages of development in Seestadt Aspern.

Sources: MA 18, 2012, p. 105, own additions based on Brech, 2012 and personal communication – Teschl, 1 March 2016.

of all WBI 2011 dwellings will be completed in Aspern. In addition, there are 760 subsidised units from the regular subsidy schemes, some 300 units for student housing and 150 units in co-housing projects.

Waldmühle Rodaun

The Waldmühle Rodaun was realised by a consortium of four LPHA developers (ÖSW AG, Familienwohnbau, WBV-GBA, Wien-Süd) and two financial investors (Raiffeisen, S-Wohnbaubank). For the project a special joint venture company was set up, with each developer participating at 25 per cent. The same consortium also builds other, smaller WBI projects (Personal communication Langmann, 28 April 2016).

The project Waldmühle Rodaun includes 450 rental units in several buildings grouped around a central park of $12,000\,\mathrm{m}^2$ (Figure 10.2). Around 80 of the units will be barrier-free "assisted living" units. The project is located at the western fringe of Vienna, bordering the neighbouring region of Lower Austria and set in the middle of the Vienna Woods, which covers large parts of the Western city surface and continuous in the neighbouring municipalities belonging to the region of Lower Austria (Figure 10.3).

The project was realised at the former site of a cement factory, out of operation since 1995, which had to be demolished. "Urban mining" recycling technologies were applied as a special feature of the project. Around three-quarters of the material from the former factory was used in the construction of "Waldmühle Rodaun" (Personal communication Langmann, 28 April 2016). Other elements



Figure 10.2 Overall layout of Waldmühle Rodaun.

Source: Waldmühle Rodaun Betreuungsgesellschaft mbH, permission to reprint.



Figure 10.3 Location of the project Waldmühle Rodaun in Vienna. Source: own depiction.

guarantee a high ecological standard for the project: central gas heating and warm water for the whole project with additional solar-collectors and thermal pumps. All dwellings have sizes of 59–125 m², and have either a balcony, terrace or own garden. Social infrastructure includes supermarkets, a common swimming pool and a kindergarten. The project was completed in late 2017.

Applicant tenants were able to choose from both financing variants which were a prerequisite of the WBI 2011 (see the section on "Context and governance framework", above).

As an example, a three-room dwelling, 82 m² usable floor space, 12 m² balcony, cost at completion:

- variant 1: tenant capital contribution: €12,900; monthly gross rental costs: €790 (i.e. $9.6 €/m^2$);
- variant 2: tenant capital contribution: €43,000; monthly gross rental costs: €663 (i.e. 8.0 €/m²).

Some dwellings in the more luxurious "villa"-sized buildings are slightly more expensive. There is some cross-subsidisation across all dwellings to reach the rental maxima stipulated in the WBI 2011 call. The gross rent levels mentioned here are in line with the net rents stipulated in the call after considering overhead building charges, a reserve fund contribution for maintenance, taxes, inflation adaptation since 2011, and the additional balcony.

The project's finance elements include the WBI loan, tenant capital contributions, own equity by the developers (especially for the building plot, see Table 13.2) and financial involvement of the consortium partners: housing construction bank *S-Wohnbaubank* and the commercial bank *Raiffeisen*. The building plot was brought in by the developers and did not belong to the city, contrary to many other WBI projects.

The main challenge in completing the project was its particular location at the fringe of a natural reserve at Vienna's borders to neighbouring municipalities (Personal communication Langmann, 28 April 2016). Special cooperation and coordination between the administrations of all involved municipalities was necessary.

Considering the remote location of the project, demand and interest for the dwellings was less than in other more central WBI locations. Marketing for the project had to focus on families due to the relatively large dwelling sizes. A right to buy option after ten years was introduced to make the project more attractive. Some pictures of the project's construction stages are presented in Figures 10.4. Further images, floor plans and short videos with information on the project are available on the project's homepage (www. waldmuehle-rodaun.at).



Figure 10.4a Waldmühle Rodaun: pictures of construction stages – cement factory before construction.



Figure 10.4b Waldmühle Rodaun: pictures of construction stages – difficult construction works.

Source: Waldmühle Rodaun Betreuungsgesellschaft mbH, permission to reprint.



Figure 10.4c Waldmühle Rodaun: pictures of construction stages – completed project. Source: Waldmühle Rodaun Betreuungsgesellschaft mbH, permission to reprint.

Outcomes, relevance, transferability

The main advantages of the WBI scheme can be summarised as follows:

- it pushes supply in a heated market,
- it provides a new tier of affordable housing in the mid-price range,
- it opens up new financing sources as it attracts institutional investors,

- it is less costly for the Viennese budget than other schemes,
- it uses existent elements of quality control for new buildings,
- it contributes to social mix and inclusion.

In addition to all available material, the interviews have highlighted some benefits of the WBI in relation to other subsidy schemes and to non-subsidised housing construction: the established subsidy schemes in Vienna are very high-profile with standardised procedures and strong competition between applicants. The process usually takes a long time and is highly formalised, e.g. concerning the quality councils' sessions, notifications, periods allowed for resubmissions and amendments for tendered projects. The WBI takes two steps back from the very ambitious and administrative complex existing subsidy schemes. It is more flexible, quicker and calls for slightly less strict requirements. It has less administrational costs for participation and follows a speedier process (Personal communication Liske & Liske-Weninger, 14 April 2016; Personal communication Teschl, 1 March 2016; Personal communication Langmann, 28 April 2016). On the other hand, the WBI is a good alternative to completely market-financed new construction, the quality of which cannot be influenced by advisory boards or competitive assessment. Also, with the WBI scheme, the City of Vienna maintains a certain influence on the social character of the subsidised dwellings, albeit only for a limited period.

The main advantages of the WBI scheme and its innovative components are also confronted with drawbacks and criticism:

- Social obligations will only last for ten years. This is a major difference from the general Viennese subsidy approach, focused on the long-term cost-rent structure and social allocation criteria of the LPHAs and the municipal housing stock. Commercial developers will be allowed to raise the rent level after ten years (only for new tenants) to a possibly higher market level. LPHAs, on the other hand, have to stick to cost-rents throughout the existence of the buildings. Since the scheme is very new, the long-term effects cannot be assessed yet.
- There are no formal income limits, even though 50 per cent of allocations
 are carried out by the Vienna housing helpdesk. Also, main residence is not
 a precondition, as it is in the other regional subsidy schemes. Overall, social
 targeting is not as strong as in other schemes.
- The financial benefit did not materialise to the intended extent, because the beneficial conditions passed on from the municipality to the developers lost clout with the decline in the market interest rate which happened during the time span of the scheme. Therefore, the conditions offered in the initial WBI were less attractive two years after the call then had been intended. The WBI of 2015 already offers more favourable conditions. The framework of the WBI will be more successful in a constant or increasing interest rate environment.

- Public building plot reserves were a crucial element in the WBI's success.
 The financial benefit alone would not have such a decisive effect on overall costs.
- The WBI helps to encourage additional affordable housing construction, but compared to the highly ambitions current output targets, this will not be enough.

The transferability of the WBI scheme to other countries and cities is more pronounced than in the other Austrian housing subsidy schemes because the constraints and requirements are less strict and the application process is speedier. Social obligation concerning maximum rents and the social allocation of half the dwellings through the city's agency last only for ten years. Thus, the subsidy scheme is also attractive for commercial developers and financial investors looking for a low-risk stable investment, but without unlimited social obligations.

However, the institutional and regulatory context of Vienna is important for the WBI's success. The scheme can build on an existing framework (advisory boards to safeguard quality, LPHAs, supervisory structure over LPHAs, city's land reserves, additional finance by Housing Construction Banks, etc.). The scheme also heavily depends on the availability of building plots that the municipality provided. The risks involved due to the financial position of developers and financial partners have to be minimised through adequate mechanisms.

An application of this or a similar scheme is possible in European countries where cities enjoy good financial ratings and can refinance themselves cheaply on the capital market. The Austrian federal initiative to set up a federal housing construction investment bank was designed after the WBI example. Though not yet in operation at the moment this chapter was finalised, the WBI investment bank will be able to channel funds from the European Investment Bank into affordable housing projects all over Austria.

Overall, the success of the Austrian social housing sector shows many elements that can serve as a role model for international applications and the WBI appears to be one of them.

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