

How to create affordable housing? New directions for land regulations and housing policy in Germany

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Key words: affordable housing, building costs, housing strategy, land use concepts, rent control, residential property prices, social housing, smart cities, urban planning

SUMMARY

This article focuses on German cities with high population growth and a seemingly new crisis of affordable housing. Residential property prices and rents have started to increase relative to income for several years, as housing supply has not kept pace with increased demand in some parts of the country. Especially in the booming metropolitan areas, policy makers make considerable effort to develop socially equitable land use concepts to bring down housing costs through the use of subsidies and rent control.

The first part of the article describes the current situation in the German housing market. Demographic change, employment growth and recently the impacts of the COVID-19 pandemic has led to significant price increases for residential property across cities in Germany. This increase has had an effect beyond major metropolitan cities, e.g. Berlin, Hamburg or Munich. Rent growth is accelerating because of an insufficient rate of building completion and the decline in the social housing stock. As a result, for the first time in years people demonstrated in many cities against rising rent prices and the lack of housing.

The second part of the article explores existing and new legal land and housing policies at national, regional and local level to manage the detected challenges. In 2019 the German construction ministry presented the results of the so-called Building Land Commission (*Baulandkommission*), a comprehensive package of measures aimed at tackling housing shortages and rising house prices. Moreover, the federal states implement social housing programs, introduce capping limits for existing rental contracts and price ceilings for new contracts in cities with tight housing markets. Additionally, different policy activities exist at municipal level (e.g. socially equitable land use concepts), which dictate that 20 to 50 percent of the approved residential construction permits are allocated to subsidized housing construction.

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1. SITUATION ON THE GERMAN HOUSING MARKET

1.1 German cities are growing

According to estimates from the Federal Statistical Office, approximately 83.2 million people were living in Germany at the end of 2020 (Destatis 2021). The country's population reached a record high – since the time Germany was reunited three decades ago, the population has seen continued growth. This population growth has exclusively been due to net immigration. Without a migration surplus the resultant effect would be an overall decline in population due to the negative sum gain in births versus deaths.

Remarkably, the population of Germany is growing at different rates in its individual regions. In the last ten years, the population has grown especially rapid in large cities and their surrounding regions (see figure 1). However, not only the four cities Berlin, Hamburg, Munich and Cologne, which each have a population over one million, but also 78 further cities with a population of more than 100,000 people are rapidly growing.

New construction activity within German cities is mainly driven by the need for new buildings, which results from the correlation between housing demand and existing housing supply. A total of 293,000 new dwellings were completed in 2019 (Federal Statistical Office 2020). The number of completed dwellings reached a 20-year record but is still below the government's target of 375,000 new dwellings per year. In the German coalition agreement, the Christian Democratic Union (CDU) and Social Democratic Party (SPD) set a target of 1.5 million new apartments by the end of the current government's four-year term in 2021.

According to the micro-census and calculations by the Empirica Institute, the home ownership rate in Germany in 2018 was approximately 42%. For the first time since 1993, the proportion of the households living in their own home, is declining (Empirica Institute 2020). In a European comparison, the home ownership rate in Germany is relatively low. Only Switzerland has a lower rate of 35%. By contrast, the highest proportions of homeowners are found in Spain (85%) and Norway (77%). Considerable regional differences can be observed between western/eastern Germany and the metropolitan areas/rural areas.

The low vacancy rate which indicates the percentage of housing stock not currently used for residential purposes is indicative of the high housing demand in Germany. In structurally weak rural areas the vacancy rate reaches rates between 5% and 7%, in the economically strong large cities the rate is less than 1% (Jones Lang LaSalle 2020).

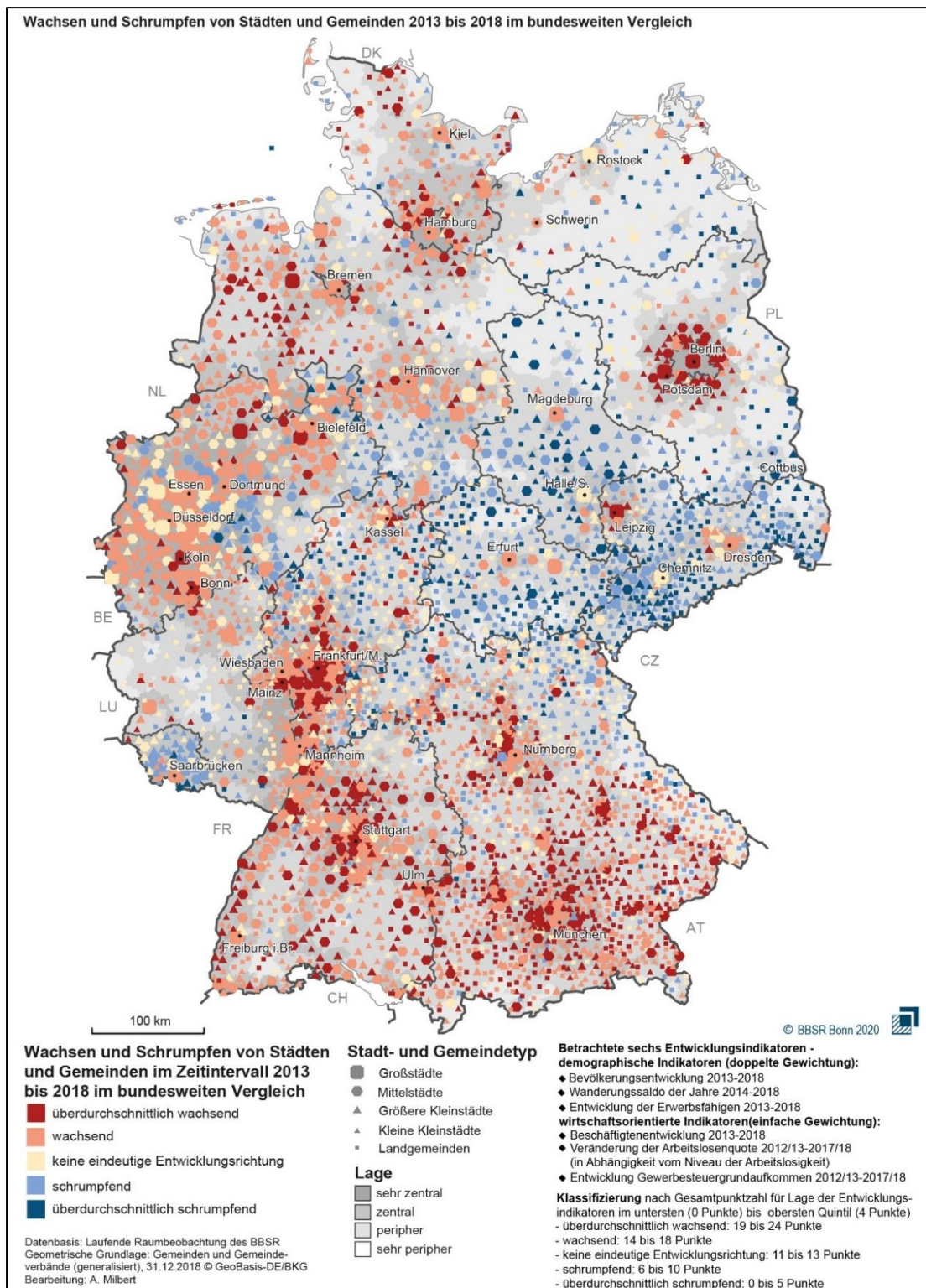


Figure 1: Growing and shrinking cities in the period 2013 – 2018 in a nation wide comparison (dark red: growing city above average; red: growing; yellow: no distinct trend; blue: shrinking city; dark blue: shrinking above average), Source: BBSR 2020.

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1.2 Rising prices for residential property and strong rent growth

Residential property prices and rents for apartments in Germany have shown a continued upward trend, particularly over the decade since 2010 (see figures 2 and 3). There are a number of reasons for this:

1. Rising income: During periods of economic growth, demand for houses tends to rise.
2. The demand for housing is disproportionate to the rate of construction due to
 - a. high immigration rate
 - b. decreasing average household size
 - c. lack of available land in densely built cities
 - d. demand for extra space to work from home as a result of the pandemic
3. New regulations and stringent requirements regarding energy supply, fire protection, accessibility etc.
4. The mortgage interest rate in Germany has decreased, remaining under one percent at the end of the year 2020.
5. During the coronavirus crisis investor interest in housing has increased contrasting the retail and office sector.

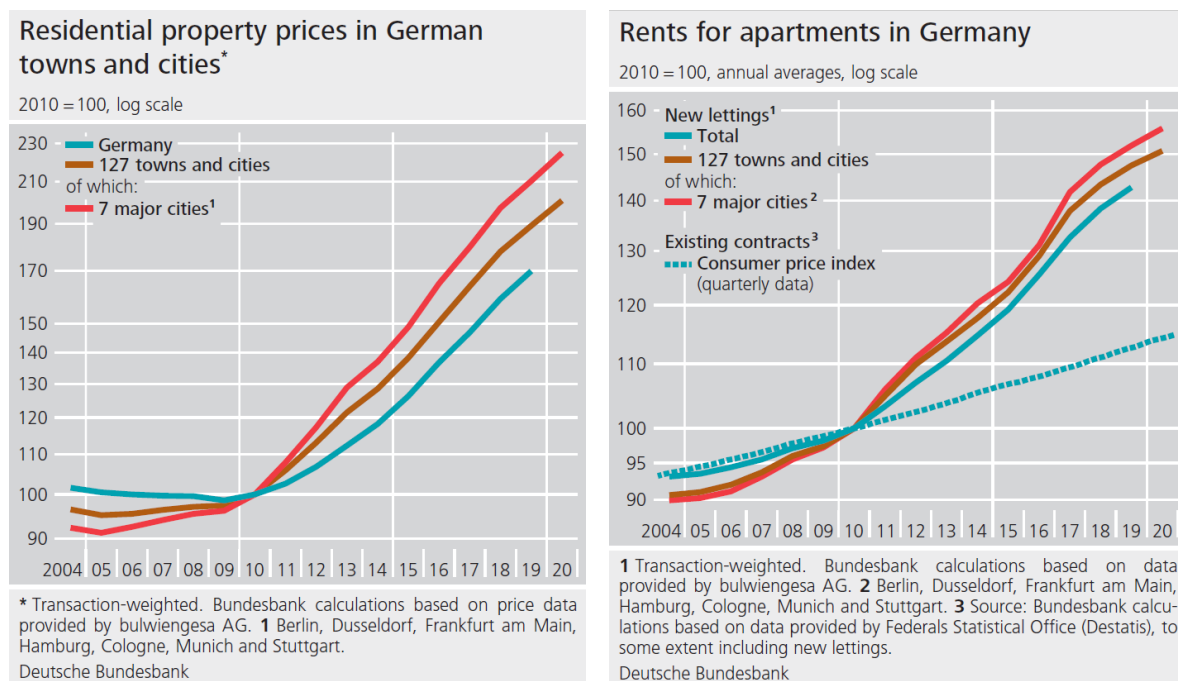


Figure 2 and 3: Residential property prices in German towns and cities; Rents for apartments in Germany. Source: Deutsche Bundesbank, March 2021.

Rental prices for new apartments in Germany are growing twice as fast as household income. This is shown by an evaluation of the German Federal Government (*Bundesinstitut für Bau-, Stadt- und Raumforschung (BBSR)*) at the request of Alliance 90/The Greens Parliamentary

Group. In the first quarter of 2018, the nominal wage index rose by 2.7 percent compared to the first quarter of 2017, while rents rose by 5.5 percent (see <https://www.housingforall.eu/germans-housing-crisis/>).

Over the last two years, this situation has considerably worsened. In 2020, as reported by the Federal Statistical Office (Destatis), nominal earnings declined for the first time since 2007 - 0.6% compared with the previous year. For comparison only, the prices of residential property (house price index) in Germany were an average 8.1% higher in the fourth quarter of 2020 than in the same quarter of the previous year (Federal Statistical Office press release #070 from 17 February 2021 and #154 from 29 March 2021).

According to the Statistical Office, in 2019 11.4 million people in Germany were living in households faced with excessive housing costs. They represented about 14% of the total population. A household is overburdened by housing costs if more than 40% of its disposable income is spent on housing, regardless of whether the dwelling is rented or owner-occupied (press release #428 from 29 October 2020).

1.3 Affordable Housing in Germany

In Germany, affordable housing construction began during reconstruction after World War II. Between 1950 and 2000, the German Government subsidised approximately 24 million units, of which 9 million were dedicated for low-income residents, called *Sozialwohnungen* or social housing (Harlander 2017).

In the early 1970s, the construction of new housing units decreased as historic preservation, revitalization efforts, and modernising projects took a larger role. In the 1980s, the Federal Government, the federal states and the municipalities abandoned social housing subsidies. Several important housing policy shifts began in the 1990s, including the privatisation of formerly government-owned social housing stock. The new system guaranteed controlled rents (lower than the market-price) only for a limited period of time. Thus, the number of social housing in Germany over the past 30 years has decreased from over 3 million to 1.1 million in 2019 (Reynolds 2018, <http://dipbt.bundestag.de/dip21/btd/19/219/1921928.pdf>, p. 15).

By 2007, a shift in responsibility for affordable housing production from the federal government to the 16 Länder is observable. The Federal Government supplemented state finances for new affordable housing production with funding called *soziale Wohnraumförderung*. Due to an increase in demand for affordable housing, the federal portion of this funding has increased in recent years from € 518 million annually in 2015 to € 1.5 billion in both 2016 and 2017. In this legislature (2018-2021), German Federal Government is funding social housing with € 5 billion and intends to use it to build 100,000 new social housing units within four years (BMI 2018).

Despite this fact, there is a drastic shortage of affordable housing especially in the metropolitan areas. It is estimated that 2 million subsidised apartments are needed until 2030 (Pestel Institut 2019).

Currently, affordable housing has become a pressing social issue. In 2019 and 2020, in an event rarely recorded, a protest march occurred through the streets of major German cities against rising rents and purchase prices for real estate.



Figure 4: Number of social housing in Germany between 2007 and 2019 (in 1.000). Own illustration, data source: <https://dserver.bundestag.de/btd/19/219/1921928.pdf>

2. LAND AND HOUSING POLICIES IN GERMANY

2.1 The New Leipzig Charta as a key basis for successful urban policy

The “Leipzig Charter on Sustainable European Cities” (2007) and its update as the New Leipzig Charter (2020) are the guiding documents for the urban development policy in Germany and throughout Europe.

As part of Germany’s Presidency of the Council of the European Union, the New Leipzig Charter was adopted on 30th November 2020 at the informal meeting of ministers responsible for urban development. The Charter reflects the principles of a modern urban development policy and was developed in a two-year participatory process at the national and European levels.

The New Leipzig Charter emphasises reliability of vital public services with the aim to reduce social, economic and environmental disadvantages. The Charter aims to support an integrated urban development for the common good in order to preserve and improve the quality of life in all cities and municipalities of Europe.

The principles of the New Leipzig Charter are to be incorporated into national, regional and local urban development strategies. The Charter also calls for municipal authorities to make greater use of the opportunities available through the European Structural Funds.

2.2 Existing Land and Housing Policies in Germany

The three levels of federal structure in Germany i.e., federal, state and local are decisive with regard to the system of spatial and urban planning. The urban planning legislation in Germany is regulated in the Federal Building Code (*Baugesetzbuch, BauGB*), which came into force in 1960.

Numerous *existing* land use strategies and housing policies have the objective of giving more households an incentive to become homeowners. Therefore, the long-term provision of building land is a key element of the German housing policy package. The amount of available building land needs to be increased, primarily for inner-city development, in exceptional cases under strict conditions and in the open countryside. Land as a non-renewable resource needs to be used prudently. Furthermore, local characteristics and environmental consequences should be taken into consideration.

The Urban Development Support programme

In Germany, the urban development support programme (*Bund-Länder-Städtebauförderung*) has been in place since 1971. The Federal Government, the federal states and the municipalities jointly finance the programme. In most cases, each contributes one-third of the funding.

The goal of the programme is to deliver sustainable structures that enable towns, cities and communities to fulfil their responsibilities over the long term. The conditions that determine social balance, cultural diversity and quality in terms of design, construction and environmental compatibility vary enormously (see for more details Friesecke 2010).

The biggest challenges today are the parallel existence of the in chapter 1 described growing and shrinking regions, the impacts of climate change, and the COVID-19 pandemic. In 2020, the Federal Government added three new Urban Development Support programmes – Vibrant Communities, Social Cohesion, and Growth and Sustainable Regeneration with funding under way in more than 5,800 urban development areas (Federal Ministry of the Interior, Building and Community 2020).

Evidence gained over 50 years of experience since programme inception indicates that the urban development support programme has had a profound effect in villages, towns, cities and in rural areas. For every euro invested yielded an additional investment of seven euros; no support programme in Germany has been more successful. A private owner benefits from government subsidies in the event of renovation, or demolition and subsequent reconstruction of a dwelling.

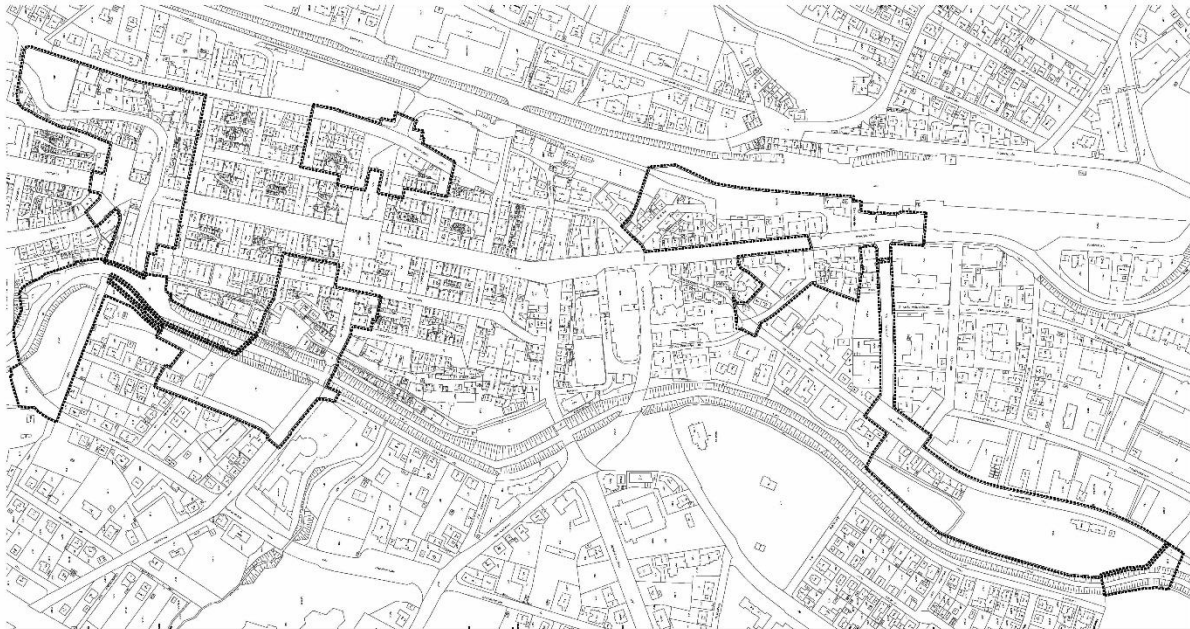


Figure 5: Use of urban development funding in special areas in the City of Balingen (Source: City of Balingen). The grants are used for upgrading public spaces (roads, paths, squares); repairing and modernising buildings that dominate the townscape (including energy efficiency improvement), construction projects and regulatory measures for the re-use of land with buildings that are vacant, not being used for their original purpose or underused, or derelict sites.

The Urban Development Measure

The urban development measure (*Städtebauliche Entwicklungsmaßnahme*) is a proven instrument for the consistent preparation and speedy implementation of large settlement projects for housing, workplaces and/or public amenities. It is an overall measure that serves to develop a certain area cohesively. Typical features of urban development measures are

1. the municipal obligation of property acquisition and reprivatization,
2. associated siphoning off the increased property value for financing the measure and
3. the legal reservation of rights to require building permission.

For these three reasons, the urban development measure is not an instrument for normal cases. It may only be implemented, if it meets public interest, is required by the common good and speedy implementation is guaranteed within a foreseeable period (Federal Office for Building and Regional Planning 2000).

Public interest includes meeting an increased demand for housing, because of this a renaissance is emerging in the application of the urban development measure in the past years (Friesecke 2019). Another reason is to provide affordable housing for people on low incomes. Any earnings incurred by the preparation and implementation of the development measure, e.g. the difference between the purchase and sales price of the land and financial settlement,

must be used only to finance the development measure, e.g. for providing public infrastructure in the development zone.



Figure 6: Planned urban development measure in the City of Konstanz (Source: City of Konstanz).

Leaseholds in German Cities

In Germany, the leasehold was re-introduced after the First World War. The legal basis is supplied by the Heritable Building Rights Act (*Erbbaurechtsgesetz*) – and with it the possibility of splitting title to the site and the building into two independent rights. Many German cities such as Hamburg and Frankfurt have a large number of leasehold sites, although the concept is not as widespread as in Asia, in the US, the UK or in the Netherlands. Traditionally, leaseholds are created by large landowners such as municipalities, church or public sector institutions. Without losing title to their property, land is made available for development in return for payment – with an eye on social or planning policy objectives, or in order to ensure the long-term economic exploitation of their interests.

Against the background of high housing demand and the corresponding strong increases in property and land prices, leaseholds are gaining increasingly in importance – both for purchasers of properties and also for owners of land. Moreover, many major cities are planning to grant leasehold ownerships over land in future rather than to sell it, in order to boost the construction of public housing and prevent speculation in land (Adrian et al. 2021). Additionally, smaller municipalities have the intention to use them as an urban planning instrument to achieve their own economic, social and housing goals. They include the City of Freiburg which intends to give priority in future to granting leaseholds instead of the sale of land, and the City of Bonn where council land is to be allocated only by way of leaseholds (<https://www.bonn.de/pressemitteilungen/februar-2021/erbbaurecht-beschluss.php>).



Figure 7: Housing Construction in Germany, Source: die STEG Stadtentwicklung GmbH

2.3 New Land and Housing Policies in Germany

In this chapter, new building land strategies for future-oriented land development in growing cities are explained, e.g., socially equitable land use concepts which provide that a certain proportion of the approved residential construction permits are allocated to subsidized housing construction.

In 2019 the German construction ministry presented the results of the Building Land Commission (*Baulandkommission*), a comprehensive package of measures aimed at tackling housing shortages and rising house prices. Apart from this, the Federal states implement social housing programs and introduce capping limits for existing rental contracts as well as a price ceiling for new contracts for cities with tight housing markets. In addition, different policy activities exist at municipal level, such as concept tendering or the digitalisation of building land release processes.

In contrast to the instruments described in the chapter before, the relatively new strategies focus mainly on the protection of tenants against excessive rent increases and relieve low earners from the further burden of their housing costs.

Municipal building land strategies

Trends and developments in increasing municipalities are observable by a lack of affordable housing and in particular, the lack of social housing. Subsequently, cities with pressure on the housing market have initiated so-called '*Baulandmodelle*' – a standardised building land strategy in areas where a binding land use plan is needed for the development (Friesecke 2015). The two main aims of this policy are to expand the affordable housing supply and to create mixed-income housing areas.

To achieve these goals, the municipality decides consciously for a defined standardised building land strategy with municipal council order. Within this definition, the procedure is

standardised for all building land developments. This strategy is the basis for the following urban contracts between municipality and individual investors. According to the needs of the municipality, the aims of the standardised building land strategy vary (see figure 8):

- Use of building land potential
- Supporting of urban housing
- Securing of contingents of social housing
- Securing urban qualities
- Cost transfer to developer to release the municipal budget



Figure 6: Aims of a standardised building land strategy (Weitkamp et al 2017).

The first municipal building land strategy called *Sozialgerechte Bodennutzung (SoBoN)* was introduced in the City of Munich 25 years ago for socially-equitable land use. This model states that developers must pay for (or even build) the infrastructure facilities that are required for new developments (e.g. kindergarten, playground). SoBoN also stipulates that at least 30% of new development must be allocated towards socially-appropriate housing to ensure a diverse mix of tenants (Landeshauptstadt München 2020).

Meanwhile, more than hundred German cities have developed building land strategies with the objective of creating affordable housing.

Rental price break

A rental price brake (*Mietpreisbremse*) introduced in Germany in 2015, is a type of rent control devised to protect tenants from disproportionately high housing costs. It applies in thirteen federal states and comprise cities with a tight housing market such as Berlin, Cologne, Düsseldorf, Frankfurt am Main, Munich and Stuttgart as well as many small and medium-sized towns and municipalities. Overall, it currently affects more than 350 municipalities (current status April 2021). For a maximum of five years, a municipality or part of it can be declared as a tight housing market if at least one of the following four criteria is met: 1) local rents grow faster than at the national average; 2) the local average rent-to-income ratio is significantly higher than the national average; 3) population grows, whereas

new housing construction does not create enough dwellings; or 4) vacancy rate is low, while demand is high.

The rental price brake stipulates that new rental contracts cannot go more than ten percent above the rents paid for comparable apartments in the surrounding area (based on local rent level surveys, *Mietspiegel*). All rent level surveys must make reference to size, layout, fittings and fixtures, quality, and location when establishing comparable rates, a further challenge is to keep the tables up to date.

There are two exceptions to the law. First, rents are freely negotiable for contracts of newly built dwellings and all contracts to follow. Moreover, rents are unregulated in the first contract after a substantial refurbishment of an existing dwelling. The rent brake also prohibits letting agents from charging fees to tenants; a significant change as the standard agent's fee in Germany is equal to a month's net rent (DIW Berlin 2016).

In February 2020, the Berlin state government adopted a rent cap (*Mietendeckel*) to freeze rents in the German capital with 3.7 million inhabitants. The cap was one of the most-debated laws in the country and covers all residential space completed before January 1, 2014, with rents frozen at the level of the rent on June 18, 2019. Rent increases of 1.3% per year will be permitted starting 2022.



Figure 7: View of Berlin with large housing estates (Source: andre_berlin, Pixabay)

On March 25, 2021, Germany's constitutional court decided that the Berlin rent cap is incompatible with the Basic Law and thus void (BVerfG 2021). The court ruling found that

since the federal government had already made a law regulating rents, a federal state could not impose its own law that infringed upon that.

In addition, the Federal Government, the federal states and the municipalities have taken numerous other immediate measures to support tenants, e.g. housing benefit or social housing assistance.

Concept tendering (Sell land based on concepts)

Concept tendering as an instrument to sell public property is growing in significance for German municipalities. Concept tendering denotes that the best price is not the defining factor when selling a property (see figure 8 for possible quality criteria as an alternative to the maximum price).

As a result, through concept tendering, municipalities maintain influence during the transaction process of real estate and on the development of the nearby proximity. Concept tendering enables municipalities to take into consideration the broader impact of a development with respect to social, functional and environmental aspects (BBSR/BBR 2020). A caveat does exist for concept tendering: The municipality is required to have access to the appropriate plots of land, this is defined by a recognised right for possession of the land, and therefore be in a position to sell or grant a building lease for it.

| Criteria | Sub-criteria | Example |
|--|------------------------|--|
| Social aspects | Housing costs | Providing affordable housing Share of subsidized housing |
| | Social aspects | Attractive public areas Focus on inclusion |
| Utilization concept | | Urbanity Diversity of housing concepts Good mix in neighbourhood Adaptation to users' changing needs |
| Urban planning and architecture quality | Urban Planning | Open space concept How does the buildings fit into the surroundings? |
| | Architecture | Architecture design and materials Housing quality |
| Environmental aspects | Energy criteria | Efficient Houses Non-negative primary energy balance |
| | Environmental criteria | Large share of recyclable construction materials Innovative mobility Innovations regarding water treatment |
| Feasibility/financing | | Economic feasibility Flexibility/construction phases |

Figure 8: Evaluation criteria for concept tendering

Digitalisation and the Smart City approach

Smart City solutions can improve the quality of life in existing and new urban structures, which ultimately serve to enhance public space. A city is considered “smart” if intelligent solutions exist for different areas of urban development such as infrastructure, buildings, mobility, services and security. This can be achieved through the use of innovative information and communication technology (Gassmann, Böhm, Palmié 2019). The challenge incorporating these solutions are currently associated more in the development of interfaces between individual “sub-markets” of a smart city (Smart Mobility, Smart People, Smart Economy, Smart Environment, Smart Government and Smart Living), and less in the collection, storage and processing of data.

The German Building Land Commission makes the recommendation that the three legislative branches improve the conditions involved in the process of creating affordable housing. The recommendation includes the digitalisation of the planning, participatory and approval process (Baulandkommission 2019). Furthermore, the digital register of designated building land should be available to all interested parties; land and building activities should be subject to continuous monitoring.

The Smart City has not yet established itself as a model for urban development worldwide, at least not in Germany (GIZ 2020). However, the current coronavirus crisis shows clearly how important geo-referenced, geographically bounded local data and digital technologies are in periods of social distancing with regard to pandemic events.

3. CONCLUSIONS

A lack of access to affordable housing has emerged in Germany in recent years. This is particularly evident in the metropolitan areas, e.g. Berlin, Munich, Frankfurt and Stuttgart. A disproportionate relationship between demand and supply has also contributed to this scarcity. To ease the pressure on housing markets, the Federal government in cooperation with federal states and municipalities have prioritised the housing supply through the following recommended measures:

1. The consistent use of existing legal instruments by the cities. In the event that co-operative approaches fail to realise beneficial results, sovereign governmental measures are necessary:
 - a. The urban development measure permits the swift acquisition for building purposes of previously unused land, waste land, or current land that is characterised by incorrect utilisation.
 - b. The rent brake and environmental protection acts serve as protection for tenants against excessive rent increases.
2. Development of a municipal building land strategy as an effective tool that incorporates a holistic approach to land policy. This strategy should be inclusive of financial, architectural and ecological aspects. Furthermore, a stipulation within this strategy that enforces a target allocation between 20 to 50 percent of socially appropriate housing to achieve a diverse mix of tenants.

3. Land owned by the state or the municipality should no longer be sold to the highest bidder, but to exemplary projects which are evaluated in terms of whether they contribute to affordable housing and other social aspects.
4. An increased adoption of leaseholds. German cities will increase the frequency of leaseholds as opposed to sale of land to serve as a deterrent against high land prices.

The Building Land Commission, The German Tenants' Association and other related institutions have expressed concern that these measures are inadequate to solve the socially pressing issue of a housing crisis. (Baulandkommission 2019, Bündnis Bodenwende 2021). The following recommendations are currently discussed:

1. Reinforcing the definition of “common-good” within the current debate of housing policy:
 - c. A levy on unearned, increased land value for the benefit of common good as described in Article 161 (2) of the Constitution of the Free State of Bavaria: ”Increases in the value of land which arise without particular effort or capital investment on the part of the owner shall be utilised for the general public.”
 - d. Greater emphasis regarding the significance of community interest within the Federal Building Code. An explicit definition serves to provide the wider population affordable housing with reasonable terms and conditions.
2. Reducing the cost of building through the use of technology and methods that promote consistency. Examples of this include promoting serial and modular construction, incorporating existing beneficial technological based solutions and developing cost-effective building technology.
3. Promotion of sustainable urban development through the increase of federal urban development funding. The strategic alignment of urban development funding programmes with the principal focus on inner-city development for housing construction.
4. Reducing land transfer tax rates:
 - a. Rates are levied as a percentage of sale price which vary from 3.5 to 6.5 percent subject to the state which the property is situated.
 - b. Tax allowances for first-time buyers of owner-occupied residential accommodation.

An active land and property policy is a prerequisite for affordable housing within Germany but also worldwide. Although price competition remains contentious in land and property markets on a global scale, strategies and instruments differ from one country to another.

Dr. Frank Friesecke is interested in interdisciplinary cooperation promoting building cities in a more sustainable, reliable and affordable manner.

REFERENCES

Adrian, L., Bunzel, A., Michalski, D., Pätzold, R. (2021), Aktive Bodenpolitik - Fundament der Stadtentwicklung. Bodenpolitische Strategien und Instrumente im Lichte der kommunalen Praxis

<https://difu.de/publikationen/2021/aktive-bodenpolitik-fundament-der-stadtentwicklung>

Baulandkommission (2019), Empfehlungen auf Grundlage der Beratungen in der Kommission für "Nachhaltige Baulandmobilisierung und Bodenpolitik"

(Baulandkommission). Bundesministerium des Innern, für Bau und Heimat, Berlin

Bundesministerium des Innern, für Bau und Heimat (BMI) (2018), Pressemitteilung vom 24.10.2018 zum Wohngipfel im Bundeskanzleramt.

Bündnis Bodenwende (2021), Sozial gerechte und nachhaltige Entwicklung von Stadt und Land,

https://www.srl.de/dateien/dokumente/de/Buendnis_Bodenwende_Wahlpruefsteine_2021.pdf

BVerfG, Beschluss des Zweiten Senats vom 25. März 2021 - 2 BvF 1/20 -, Rn. 1-188,

http://www.bverfg.de/e/fs20210325_2bvf000120.html

Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) (2020), Co-creating Climate Smart Cities: A Practical Guide, https://www.giz.de/en/downloads/2020_GIZ_ICT-A_Co-Creating_Climate_Smart_Cities_Practical_Guide.pdf

DIW Berlin - German Institute for Economic Research (2016), Market break or simply fake? Empirics on the causal effects of rent controls in Germany,

https://www.diw.de/documents/publikationen/73/diw_01.c.535869.de/dp1584.pdf

Empirica AG im Auftrag der LBS Bundesgeschäftsstelle Berlin (2020), Wohneigentum in Deutschland - Teil 1: Verbreitung, [https://www.empirica-](https://www.empirica-institut.de/nc/nachrichten/details/nachricht/wohneigentum-in-deutschland-teil-1-verbreitung/)

[institut.de/nc/nachrichten/details/nachricht/wohneigentum-in-deutschland-teil-1-verbreitung/](https://www.empirica-institut.de/nc/nachrichten/details/nachricht/wohneigentum-in-deutschland-teil-1-verbreitung/)

European Commission (2007), LEIPZIG CHARTER on Sustainable European Cities,

https://ec.europa.eu/regional_policy/archive/themes/urban/leipzig_charter.pdf

European Commission (2020), New Leipzig Charter- The transformative power of cities for the common good,

https://ec.europa.eu/regional_policy/en/information/publications/brochures/2020/new-leipzig-charter-the-transformative-power-of-cities-for-the-common-good

Federal Institute for Research on Building, Urban Affairs and Spatial Development (BBSR)

within the Federal Office for Building and Regional Planning (BBR) (2020), Baukultur for urban neighbourhoods. Process culture through concept tendering,

https://www.bbsr.bund.de/BBSR/DE/veroeffentlichungen/sonderveroeffentlichungen/2020/konzeptvergabe-langfassung-dl-en.pdf?__blob=publicationFile&v=4

Federal Ministry of the Interior, Building and Community (2020), Holistic, Sustainable, Collaborative - 50 Years of the Urban Development Support Programme in Germany,

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https://www.staedtebaufoerderung.info/StBauF/SharedDocs/Publikationen/StBauF/Broschuer_e_50JahreStBF_en.pdf?__blob=publicationFile&v=2

Federal Office for Building and Regional Planning (2000), Urban Development and Urban Policy in Germany – an overview. <https://d-nb.info/1002088402/34>

Friesecke, F. (2010), Urban Development Grants in Germany – A Critical Success Factor to Strengthen Cities under Changing General Conditions, FIG Congress 2010 in Sydney, Australia, https://www.fig.net/resources/proceedings/fig_proceedings/fig2010/papers/ts03e/ts03e_friesecke_3823.pdf

Friesecke, F. (2015), Land Policy Models and Strategies in the Federal Republic of Germany, in: Hepperle, E., Dixon-Gough, R., Mansberger, R., Paulsson, J., Reuter, F., Yilmaz, M.: Challenges for Governance Structures in Urban and Regional Development, p. 125-137.

Friesecke, F. (2019), Die Renaissance der städtebaulichen Entwicklungsmaßnahme gem. §§ 165 ff. BauGB - Praxisbericht aus Sicht eines Entwicklungsträgers, in: fub 4/2019, S. 152 – 160.

Gassmann, O., Böhm, J., Palmié, M. (2019), Smart Cities: Introducing Digital Innovation to Cities. Melbourne: Emerald Publishing Limited.

Harlander, T. (2017), “Bezahlbares Wohnen” und Städtebau—Rückblick und Ausblick, Planerin No. 1/2017, p. 5-8.

Landeshauptstadt München (2020), Die Sozialgerechte Bodennutzung. Der Münchner Weg, <https://www.muenchen.de/rathaus/Stadtverwaltung/Referat-fuer-Stadtplanung-und-Bauordnung/Stadt-und-Bebauungsplanung/SoBoN.html>

Jones Lang LaSalle (2020), Housing Market Report Germany 2020, <https://www.jll.de/content/dam/jll-com/documents/pdf/research/emea/germany/en/Housing-Market-Report-JLL-Germany.pdf>

Pestel Institut e.V. (2019), Kurzstudie: Leitfaden für soziales und bezahlbares Wohnen in Deutschland zum wohnungsbaupolitischen Akutplan vom Verbändebündnis Soziales Wohnen, Hannover August 2019.

Reynolds, K. (2018), Creating Permanent Housing Affordability: Lessons From German Cooperative Housing Models, in: Cityscape: A Journal of Policy Development and Research, Volume 20, Number 2/2018.

Statistisches Bundesamt (Destatis), Press release No. 199 of 4 June 2020, No. 438 of 20 October 2020 and No. 16 of 12 January 2021, No. 70 of 17 February 2021 <https://www.destatis.de/DE/Presse/Pressemitteilungen/>

Weitkamp, A., Klein, I., Friesecke, F. (2017), Strategies of Developing Building Land in Growing Cities. In: Land ownership and land use development – The Integration of Past, Present, and Future in Spatial Planning and Land Management Policies, European Academy of Land Use and Development (EALD) (2017), S. 327–340.

BIOGRAPHICAL NOTES

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