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DIW Weekly Report

Provided in Cooperation with:

German Institute for Economic Research (DIW Berlin)

Suggested Citation: Kholodilin, Konstantin; Weber, Jan Philip; Sebastian, Steffen (2018): Rental market regulation over the last 100 years in an international comparison, DIW Weekly Report, ISSN 2568-7697, Deutsches Institut für Wirtschaftsforschung (DIW), Berlin, Vol. 8, Iss. 45, pp. 453-464, https://doi.org/10.18723/diw_dwr:2018-45-1

This Version is available at: https://hdl.handle.net/10419/187687

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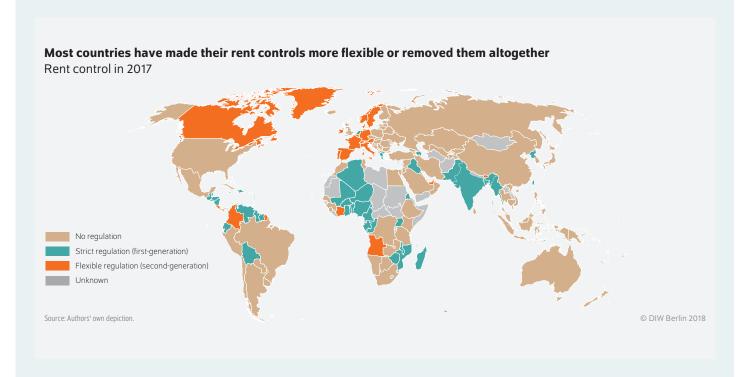


AT A GLANCE

Rental market regulation over the last 100 years in an international comparison

By Konstantin Kholodilin, Jan Philip Weber, and Steffen Sebastian

- · Scientific analyses of housing market regulations have so far often failed due to insufficient data
- A unique dataset is presented here which allows a quantitative representation of rental market regulation
- The indices for measuring housing regulation intensity are available for 64 countries and date back more than 100 years
- Compared to the rest of Europe, Germany has relatively intense rent controls which have been tightened in recent years
- Nevertheless, the impact of these changes should be accompanied by further analysis in the future



FROM THE AUTHORS

"Indices for measuring regulation intensity allow for a more objective analysis of government interventions on the housing market. For example, they show that Germany — compared to the rest of Europe — has relatively intense rent control." — Konstantin Kholodilin —

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Rental market regulation over the last 100 years in an international comparison

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ABSTRACT

Residential rental markets regulations have become an integral part of everyday life in Germany as in almost all other countries. The strong house price and rent increases over the past decade have fueled social debate on this issue. Tenant movements worldwide are demanding tighter regulations and advocating for affordable housing as a central civil right. In contrast, those skeptical of regulation fear excessive levels will impair market mechanisms. Scientific analyses on this topic have so far often failed due to insufficient data. The present study addresses this problem and presents a unique dataset that quantifies rental market regulations. Indices for measuring regulation intensity are available for 64 countries and date back more than 100 years. The dataset enables an examination of regulation intensities and regimes in a cross-country comparison. Such a comparison shows that Germany—compared to the rest of Europe—has relatively intense rent control which has been tightened even further since 2015. The impact of these changes should be accompanied by further analysis in the future.

Since 2010, Germany has been experiencing a housing market boom after over a decade of stagnation. However, this development has not been met positively everywhere in Germany. Every year the boom continues, the risk that the German real estate market will overheat increases.¹ Additionally, the rises in rents over the years have created social tensions on the rental housing market, which plays an important role in Germany due to the large size of its rental housing sector.

Major German cities are currently experiencing the most severe effects of the boom. Housing is becoming increasingly scarce in major cities and thus more expensive as a result of an ongoing re-urbanization trend. This applies to both the buyers' and renters' markets. In the case of the rental housing market, policymakers have so far responded with regulations on pricing (lowering the caps for rent increases and introducing rental brake) and changes to tenant protection from eviction (blocking periods for landlords terminating rental agreements in order to use the dwelling personally). In addition, housing policy is now once again focusing more on creating and maintaining social housing.

Although the question of rental market regulation has been discussed intensively from a theoretical point of view, it is not clear which consequences it will have in the long term. Based on neoclassical theory, for example, many economists are convinced that medium- to long-term regulatory interventions in rent determination will only exacerbate existing housing market problems. However, the empirical evidence for these controversial views is insufficient. At the macroeconomic level in particular, statistical analyses investigating the effects of regulation intensity are scarce due to the lack of data.

¹ Konstantin A. Kholodilin and Claus Michelsen, "Signs of New Housing Bubble in Many OECD Countries – Lower Risk in Germany," *DIW Weekly Report*, no. 30/31 (2018): 275–285 (available online).

Box 1

Wide selection of tools available for regulating the housing markets

Housing policy as a whole is defined as those measures by which the state influences the situation on the housing market. Interventions on the rental housing market often aim to provide people with affordable and high-quality housing. Housing market regulations often also serve the overriding goals of a state, such as political, social, and economic stability.

The state has a wide selection of tools available for regulating the housing markets. A distinction can be made between promotional and restrictive instruments. Promotional measures come in two forms: object aid (promoting residential (social) construction) and subject aid (assisting tenants through housing allowances). The restrictive measures encompass rent control, tenant protection from eviction, and housing rationing. Further housing policy measures in wider sense include building standards, city planning, environmental protection, tax policies, and banking regulations, as these can influence incentives in the residential property market. This report focuses exclusively on the restrictive, direct rental market policies. Each of these tools is examined in more detail below.

Rent control. The main purpose of this policy is the protection of tenants from "speculative" or disproportionate rent increases. When housing becomes scarce (or there is an excess demand on the rental housing market) as the result of too little new construction compared to the population increase or a decline in housing due to war or natural disasters, for example, rents generally begin to rise. In the short run, it is impossible to increase the housing supply quickly enough to meet demand. Against this background, rent control had originally established itself as a purely short-term instrument, but later developed into a permanent intervention in market mechanisms.

As rent is one of the most important components of household expenditures (the share of housing expenses varies between 15–30 %), a sharp rise in rental prices can lead to massive burdens on tenants. Households must accept considerable losses in purchasing power in situations where rental prices are rising across a broad front. Such developments, if prolonged, may therefore pose a serious social and political problem.

Modern rent control originated during World War I. At that time, first-generation rent control had been introduced. It is the strictest form and "freezes" rents, fixing them at some basic level. However, these rent controls were often repealed in the years after World War I. During the World War II, governments began to implement rent control again.

Tenant protection from eviction. The purpose of this policy is to reduce eviction risks for tenants. Popular measures are laws on minimum lease terms or minimum requirements for lawful termination. The reasonable ground for lawful tenant eviction, such as the urgent need of the landlord or their relatives to move into the occupied dwelling, the tenant's failure to pay rent, or the tenant disturbing the peace, play an important role. Tenant protection has a

special role in rental market regulations as well as it closely corresponds to rent control. For example, certain forms of tenant protection in combination with special rent controls—such as statutory minimum terms for rental agreements with freely set rents for new contracts but existing rents are regulated—can cause rents to rise significantly more sharply than in the regulated market.¹

Prior to World War I, legislation regarding the right of termination was very liberal in most countries. Most tenancies fell either under normal contract law or were not even covered by the law. Tenant protection was mostly underdeveloped. In Europe at this time, the relationships between landlords and tenants were regulated by the rental contract, which offered the tenants little to no protection. After the end of the rental contract, the landlord could evict the tenant easily.

Over the course of the political and social upheavals of the world wars as well as industrialization and urbanization in the 20th century, the legal situation in many countries changed in favor of the tenants. Tenants are strongly protected from eviction in many countries today. Nevertheless, over the course of the past 100 years, there have been increases and decreases in regulation intensity similar to those in rent controls, albeit to a much lesser extent.

Housing rationing. The goal of this policy is to preserve scarce housing. Housing rationing is applied on both the supply and demand sides. On the supply side, measures are taken to avoid rental apartments exiting the rental market. Thus, demolishing or misusing dwellings is often prohibited, as is merging rented flats or converting them into condominiums. On the demand side, it is possible to prescribe the maximum standards of living space per person or to limit freedom of movement by restricting the number of individuals who may move to areas with scarce housing. Although these policies are regarded as a characteristic feature of a centrally planned economy, they are very often also used in market economies in unfavorable situations.

¹ Jan P. Weber, "The regulation of private tenancies—a multi-country analysis," dissertation (available online).

Table 1

Restrictive rental market regulations

Rent controls				
Real rent freeze	The dummy equals one if landlords may not increase rents by more than the growth of official cost or price indices.			
Nominal rent freeze	The dummy equals one if rents are determined solely by the government or another institution.			
Rent level control	The dummy equals one if landlords may not charge rents above a certain rent level.			
Intertenancy decontrol	The dummy equals one if rent control holds at the beginning and during the tenancy.			
Other specific rent decontrol	The dummy equals one if certain kind of dwellings are not de-controlled, such as new constructions, vacant dwellings, or luxury housing.			
Specific rent recontrol	The dummy equals one if certain kind of dwellings fall under a stricter rent regime.			
Tenant protection security				
Eviction protection during term or period	The dummy equals one if only reasonable reasons lead to a warranted eviction during the term or rent payment period.			
Eviction protection at the end of term or period	The dummy equals one if only reasonable reasons lead to a warranted eviction at the end of term or rent payment period.			
Minimum duration	The dummy equals one if a minimum duration period of more than two years is compulsory for every private tenancy.			
Short-term tenancies	The dummy equals one if short-term tenancies that are tenancies up to a year are not allowed.			
Housing rationing				
Registration of housing	The dummy equals one if the vacant or underused dwellings must be registered by the landlords.			
Protection of housing	The dummy equals one if destruction of housing stock (prohibition to use dwellings for non-residential purposes, merge, or demolish dwellings) is prohibited.			
Creation	The dummy equals one if measures to mobilize all available spaces (also non-residential) are applied.			
Requisition	The dummy equals one if vacant dwellings are compulsorily requisitioned and rented by the authorities.			
Restriction of freedom to move	The dummy equals one if migration to regions with an acute housing shortage are limited.			
Conservation of social composition	The dummy equals one if value-increasing reconstruction leading to a change in social composition of certain neighborhoods is prohibited.			
Housing consumption norms	The dummy equals one if restrictions on the amount of housing being used by tenants are imposed.			
Nationalization of housing	The dummy equals one if state nationalizes housing stock, and zero if no nationalization or privatization.			

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Until now, there were no quantitative assessments of rental market regulation intensity that would cover not only multiple countries but also multiple years. Thus, the time dimension has been largely ignored in research. However, this dimension is often of particular importance as housing is a very durable good often depending on decisions made decades ago.

This Weekly Report presents the recent findings in rental market regulation research.³ It presents new and unique data which reflect the regulation intensity of rental housing—the extent of legal restrictions on renting—in 64 countries worldwide and for over a century. The new data thus provide the basis for comprehensive analyses of the effects of regulation on various aspects of the housing markets.⁴

2 The following studies provide a "snapshot" of rental market regulations for multiple countries: Dan Andrews, Aida Caldera Sánchez, and Ása Johansson, "Housing markets and structural policies in OECD countries," OECD Economic Department Working Papers 836 (2011); Simeon Djankov et al., "Courts: The Lex Mundi project," The Quarterly Journal of Economics 118, no. 2 (2003): 453–517; Stephen Malpezzi and Gwendolyn Ball, "Measuring the urban policy environment: an exploratory analysis using rent control," Habitat International 17. no. 2 (1993): 39–52.

Measuring housing market regulation intensity

Housing market regulations must be made measurable in order to estimate their impact (Box 1). Regulations are laid out in legislative texts. The relevant information is extracted from these texts and transformed into binary variables which take the value 1 if the corresponding regulation applies in the respective period and the value 0 if not. For example, there are questions as to whether or not the rent level should be determined by the state, or whether the landlord may simply terminate the tenancy during or at the end of the rental contract at will or if he needs reasonable grounds for doing so. There are several such binary variables for each kind of restrictive policy (rent control, tenant protection from eviction, and housing rationing). The rent control index is calculated as the average of six binary variables, for example. The three indices vary between 0 (no regulation) and 1 (comprehensive regulations). The higher the index, the more limited the landlord's actions, which typically means stronger tenant protection.

Currently, the database contains 64 countries from every continent, primarily Europe. Country selection was mainly determined by the availability of legislative texts. In some countries (particularly Anglo-Saxon countries and former British colonies), analysis is complicated by the fact that housing markets are not regulated at the federal level but rather at the state or provincial level.

³ See Jan P. Weber (2017): The regulation of private tenancies – a multi-country analysis. Dissertation (available online); Jan P. Weber und Gabriel Lee (2018): On the Measure of Private Rental Market Regulation Index and its Effect on Housing Rents: Cross Country Evidence. Beiträge zur Immobilienwirtschaft 21, Expertise, IREBS International Real Estate Business School, Universität Regensburg, Regensburg (available online); Konstantin A. Kholodilin (2017): Quantifying a century of state intervention in rental housing in Germany. Urban Research and Practice, 10 (3), 267–328; and Konstantin A. Kholodilin (2018) Measuring Stick-Style Housing Policies: a Multi-Country Longitudinal Database of Governmental Regulations. DIW Diskussionspapier 1727.

⁴ The regulation indices are available at the following website for free: https://www.remain-data.org/.

Box 2

New database of restrictive housing market regulations

Housing market regulations are measured by converting legislative texts into numerical values. An approach by Jan P. Weber¹ and Konstantin A. Kholodilin² was used to code laws on rent control, tenure security, and housing rationing. Based on a set of questions, binary variables were constructed that are equal to 1 when the regulation is applied and 0 when not. An overview of the individual binary indices is shown in the table (Box, Table 1).

For each type of regulation (rent control, tenant protection from eviction, and housing rationing), a composite index is calculated, which represents the average of the corresponding binary variables.

Currently, the database includes 64 countries or states between 1910 and 2018 (Box, Table 2). The countries were selected according to the availability of legislative texts. Europe and Latin America are most often represented. The only African countries included are a few former French and Portuguese colonies as it was relatively easy to find their historical laws. For North America, coding is very difficult because housing market regulations are adopted at the regional level (states, provinces, and cities).

Table 2

List of countries for which regulation indices were constructed

Continent	Countries	Sample size	Total countries (states)
Africa	Angola, Madagascar, Mali, Morocco, Niger, Togo, Tunisia	7	60
Asia	Cyprus, Macao, Pakistan (Punjab), Philippines, Singapore, Turkey	6	51
Europe	Andorra, Austria, Belgium, Czech Republic, Denmark, Estonia, Finland, France, GDR, Germany, Greece, Iceland, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Monaco, Norway, Poland, Portugal, Romania, Russia, San Marino, Slovakia, Spain, Sweden, Switzerland, UK, Ukraine	32	53
Latin America and the Caribbean	Argentina, Bolivia, Brazil, Chile, Colombia, Haiti, Mexico (Distrito Federal), Nicaragua, Panama, Peru, Salvador, Trinidad and Tobago, Uruguay	13	52
North America	Canada (Alberta, Ontario, Quebec), USA	4	5 (60)
Oceania	Australia, New Zealand	2	29
World		64	250

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Long phase of deregulation on the rental markets is over

Rent regulation is the most prominent instrument for controlling the rental housing markets. While regulations on the purchase price of houses were uncommon in the past,⁵ rent control has a rich history. Almost every country in the world has utilized rent control in the past 100 years (Figure 1).

Rent regulation developed consistently in the 20th century. At the beginning of modern rent regulation, particularly strict forms were established—namely the first-generation rent control regime. These forms were usually temporary and experienced their peak during the two world wars and in the early second half of the 20th century. In this strict form of rent regulation, rents were fixed at a certain level (for example, at the amount paid before the war, as a percentage

of the rateable value of the property, at a certain amount, or at the typical local rent) and increases were prohibited. Only the state could grant permission to increase rents in order to adjust them to general inflation somewhat or to partially cover increased costs resulting from modernization or higher taxes. Even so, these changes were usually far from sufficient for protecting the real value of the rental revenue from erosion.

Over the course of the 1960s and 1970s, the first-generation rent control regimes in advanced economies were largely replaced by the second generation. During this period, economic downturns, oil shocks, and hyperinflation led to new forms of regulation that allowed much greater flexibility. These somewhat relaxed regulations were called the second generation. Instead of regulating the rent level, the law-makers restrict the growth rate of rents. Typically, rents are linked to a measure of purchasing power and in most cases, the consumer price index serves as a reference measure. Other forms of second-generation rent control include

¹ Jan P. Weber, "The regulation of private tenancies—a multi-country analysis," dissertation (available online).

² Kholodilin and Michelsen, "Signs of New Housing Bubble in Many OECD Countries."

⁵ Only one example is known—Norway, where the purchase price of houses has been regulated since the beginning of World War II. See Are Oust, "The removal of rent control and its impact on search and mismatching costs: evidence from Oslo," *International Journal of Housing Policy* 18, no. 3 (2018): 439, Table 1.

⁶ Richard Arnott, "Tenancy rent control," Swedish Economic Policy Review 10, no. 1 (2003): 89–134.



stepwise rent increases or complete flexibility in setting the rental price under certain conditions, such as new rentals, vacancies, or luxury properties. These forms are much less strict and allow rent adjustments to a certain extent.

The rent control index can be used to classify the individual rental regimes and examine their distribution worldwide (Figure 2). This shows that, in addition to rental regimes with comprehensive flexibility, the second generation is now the most common worldwide.

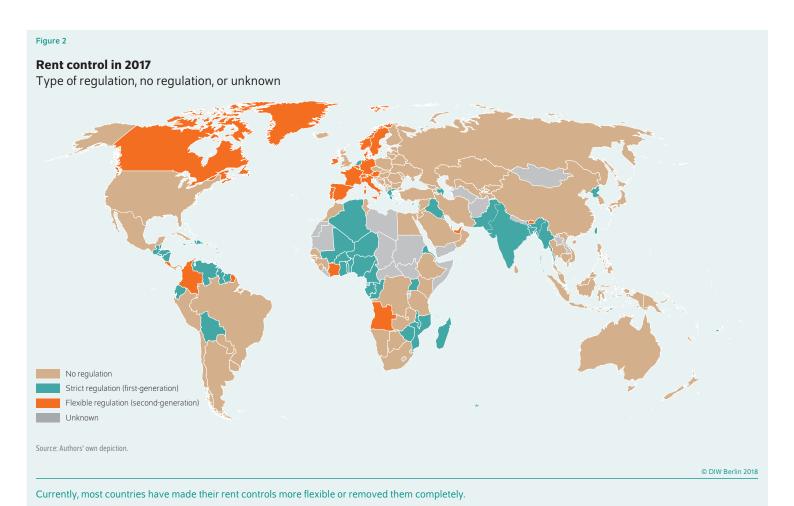
In all regions studied, the rent control intensity reached a high point—at different times—before stabilizing or finally falling (Figure 3). The highest rent control intensity was reached in the 1940s in Europe, North America, and Oceania; in the 1950s in Latin America and the Caribbean (LAC); and in the 1970s in Africa and Asia. Additionally, rent control intensity in Europe and Oceania in the first half of the 20th century was above the worldwide average. In LAC it was above the worldwide average from 1950 to 1980 as well as the late 1990s, in Africa since 1960, and in Asia between 1980 and 2000. Rent control was first introduced in Europe while Africa and LAC lagged behind. This especially applies to Africa, where rent control intensity remains quite high. This has to do with the change from the first-generation rent controls to the second generation, or with the complete removal of such controls.

The sum of the shares of first- and second-generation rent controls are not always 1, as some countries has no restrictions at all. Europe was the first to introduce second-generation rent control in the early 1970s (Figure 4). In the early 1990s, the number of countries with second-generation rent controls exceeded the number of countries with first-generation rent controls; this is related to former socialist states transforming into market economies at the time. Second-generation rent controls were introduced in LAC in the late 1970s, in Asia in the late 1990s, and in Africa in the 2010s, although there are still countries with first-generation rent controls in Africa and LAC. Oceania never had any second-generation rent controls as they switched directly to an unregulated market.

Tenant protection from eviction is an integral part of rental market regulation worldwide

Aside from rent control, tenant protection from eviction is an important part of rental market regulation.

Unlike rent control, which has been on the decline since the second half of the 20th century, tenant protection from eviction has been increasing worldwide and stabilized at the turn of the century (Figure 5). Intensity only increased in North America and Oceania after World War II. As of the end of the analysis period, protection of tenants from eviction is the



strongest in Europe and the weakest in Oceania. It is sub-

stantially weaker in Asia compared to the worldwide average, while it is close to average in Africa and LAC.

Housing rationing in Europe a result of the world wars

The third group of regulatory measures includes legislation relating to housing rationing. Although this policy receives little attention in the literature, it appears to be very widespread: of the 64 countries analyzed, almost three-fourths had introduced this type of legislation.

Measures for forced redistribution of housing are present almost everywhere in the world (Figure 6). In Europe, this type of regulation was utilized during the world wars and their aftermath in particular. They were subsequently reduced significantly but never completely dismantled. New forms of housing rationing were even introduced, such as the *Milieuschutz* zones in Germany,⁷ where the balanced social composition in a particular urban area is protected. In other parts of the world—such as in America—housing rationing is playing an increasingly important role.⁸

High level of rent control in Germany compared to other European countries

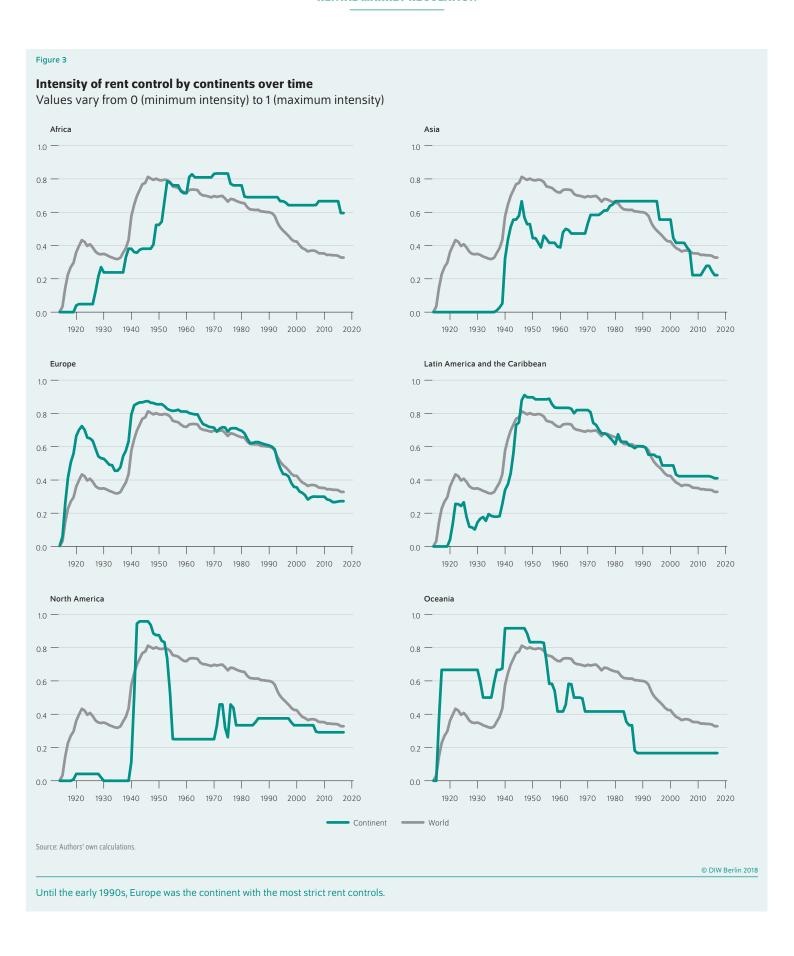
After more than 30 years of rent control in Germany at a relatively low level by European standards, regulation intensity has risen sharply (Figure 7). Both in Germany and France a tightening of rent control—which was previously sharply reduced—can be observed, similar to the situation in Germany in the early 1980s. In Great Britain, which experienced an even more significant removal of rent controls at the end of the 1970s, these remain at a low level. Parallel to the recent re-regulation in Germany and France, Sweden has massively reduced its rent control, which was previously considered one of the most intense in Europe. As a result, Germany currently has a relatively high degree of rent control and is one of the European countries which most strongly regulates its rental housing markets.

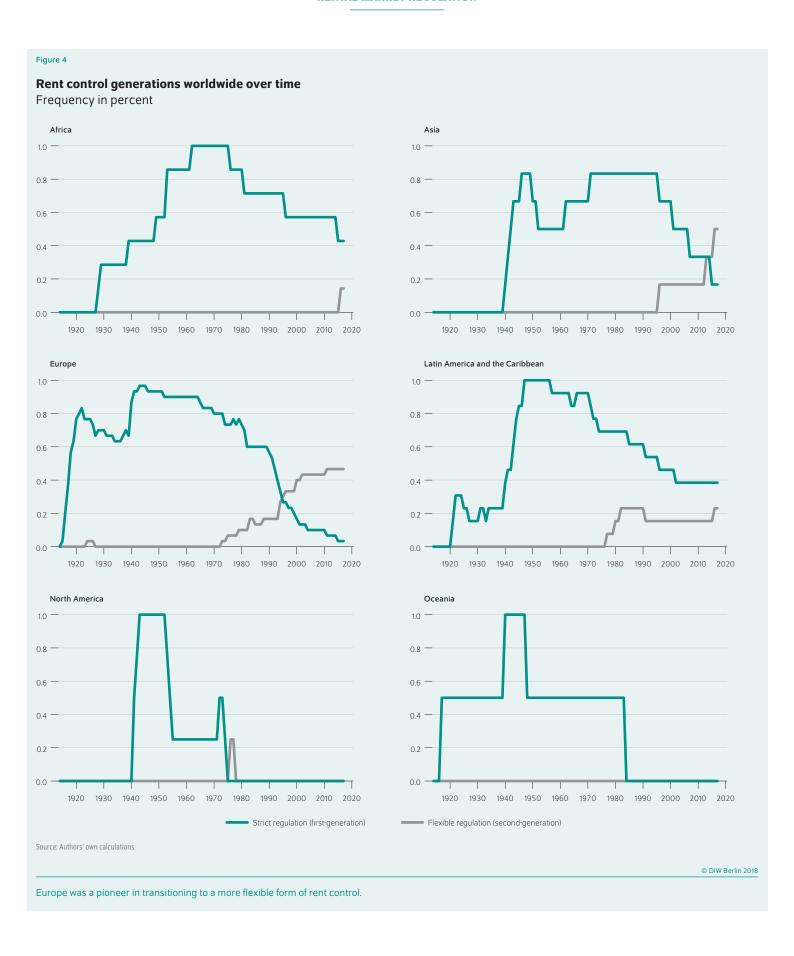
Conclusion: regulation indices enable objective analyses of housing markets

The history of rental market regulation is rich in examples and developments. They are lessons in both successful regulations and fatal mistakes. Regulating residential rental markets remains a polarizing topic of political debate worldwide as it is linked to a central social issue of modern society: the right to affordable housing.

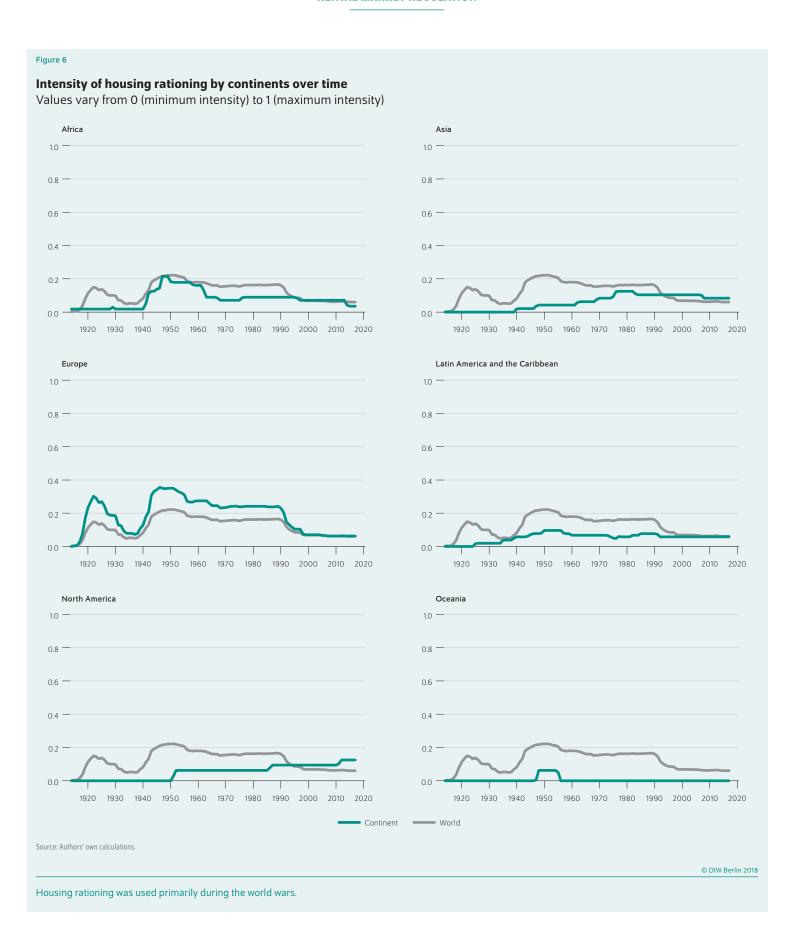
⁷ Kholodilin and Michelsen, "Signs of New Housing Bubble in Many OECD Countries."

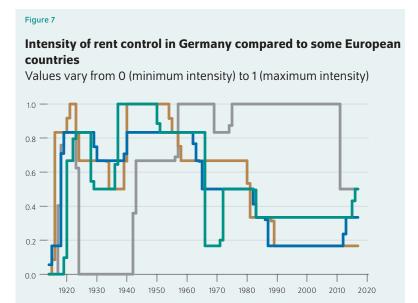
⁸ W. Dennis Keating, "Landlord self-regulation: New York City's rent stabilization system 1969–1985," Journal of Urban and Contemporary Law 31 (1987): 77.











Source: Authors' own calculations.

Germany

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Sweden

Rent control in Germany is stronger than in Great Britain and at the same level as in Sweden.

Great Britain

France

In the past as well as the present, governments in many countries have intervened in the housing market to influence tenant protection from eviction and affordability. However, some countries have deregulated their housing markets strongly, Anglo-Saxon countries and some former socialist countries in particular. Sweden's previously high level of regulation now corresponds with the German level, although this is also due to the fact that regulation has recently increased in Germany. Regulation in Germany is relatively intense by European standards. The impact of these regulatory changes should be accompanied by further analysis in the future.

The question remains: what is better? Should the rental market be regulated strictly or not at all? Is there an optimal degree of regulation that is more helpful than damaging? If yes, does this optimal degree change with the housing market conditions? There are many key questions which remain insufficiently answered to this day.

The database on rental housing market regulation presented here is intended to make a decisive contribution to answering these and many other housing policy questions. The regulation indices do not only enable comprehensive country comparisons—they also offer the opportunity to examine the impact of regulations on various aspects of the housing market (purchase and rental price development, home ownership rate, mobility, construction activity, etc.) using well-founded statistical methods, thus bringing more objectivity into political debates.

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JEL: C43, O18, R38

Keywords: Rent control, protection of tenants from eviction, housing rationing, regulation indices

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⁹ The intense rent control in Sweden may be responsible for the long lines of tenants waiting for apartments and the strongly increasing home ownership rates. See Silke Bigalke, *Die Wohnung kündigen? Nie im Leben! ** Süddeutsche Zeitung, March 31, 2016 (in German; available online).

¹⁰ See Konstantin A. Kholodilin, Andreas Mense, and Claus Michelsen, "Mietpreisbremse ist besser als ihr Ruf, aber nicht die Lösung des Wohnungsmarktproblems," *DIW Wochenbericht*, no. 7 (2018): 107–117 (in German: available online).

LEGAL AND EDITORIAL DETAILS



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Volume 8 November 7, 2018

Publishers

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Layout

Roman Wilhelm, DIW Berlin

Cover design

© imageBROKER / Steffen Diemer

Composition

 ${\sf Satz\text{-}Rechen\text{-}Zentrum\;Hartmann+Heenemann\;GmbH\;\&\;Co.\;KG,\;Berlin}$

ISSN 2568-7697

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