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Stream 3

Article nº 3-024

**DISPLACEMENT THROUGH ENERGY-EFFICIENT
RETROFITTING?**

IMPACTS, ACTORS AND POLICIES

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1. INTRODUCTION

In order to uphold its energy efficiency targets, the German government employs a variety of strategies. One such strategy is the renovation of buildings, in particular thermal insulation, which is funded either via targeted tax rebates or via low-interest loans by the German Reconstruction Loan Corporation (Kreditanstalt für Wiederaufbau, KfW) in order to stimulate private investments into the housing stock. Not only – it is argued – do the renovations increase energy efficiency and contribute to climate protection, but they are also supposed to help private households lower their energy bills in times of rising energy costs.

In practice, the implementation of energy efficiency policy through building renovations has been highly contested. Housing companies and individual owners of buildings are allowed to pass on the retrofitting costs to their tenants; they may add up to 11% of renovation costs to the monthly net-rent. In the German housing system with a comparably high share of the rental sector, especially in larger cities, energy-efficient retrofitting measures realized by public and private housing companies or landlords thus affect tenants who have little influence on the decision-making process, but are expected to come up for the costs.¹ As a consequence, rents are increasing, no matter whether savings on the energy bill can be realized or not. Firstly, this reduces the availability of affordable housing in general, as rents remain on a higher level even when the retrofitting costs have been written off. Secondly, poor households may no longer be able to pay their rent and may have to move to less insulated housing stock, which will lead to ever increasing energy bills. Thirdly, in order to avoid displacement, tenants may have to cut costs in other spheres of life and experience a lower quality of life, if not poverty. The positive outcome of retrofitting – more energy efficiency in the building sector – is thus compromised by the danger of a new kind of displacement and thus an increasing danger of segregation induced by energy-efficient retrofitting.

The paper discusses the state of the art of the literature and then draws on two case studies conducted in two German cities – Dortmund and Erfurt – in 2014/15. The case studies consist of secondary data analysis, expert interviews and surveys among residents in

¹ The ratio of owner-occupier households is much lower in Germany than in most European countries and in North America. In Germany, about 52% of residents live in their own house or apartment (in 2013, de.statista.com; EU average: 71% in 2012).

neighbourhoods transformed by large-scale retrofitting measures.² They show that displacement occurs at the specific intersection of policies ignoring, not hindering or even supporting speculative investments and intended dislocations, especially in places of high housing demand and lucrative investment prospects for real estate companies.

2.ENERGY-EFFICIENT RETROFITTING AS DRIVER OF DISPLACEMENT?

In Germany, increasing pressure on local housing markets – due to, for example, reurbanisation of young middle-class families (Frank 2012) – has stimulated local debates on displacement and gentrification since urban renewal and retrofitting measures have led to rising rents and to an expulsion of local residents. According to calculations of various segregation indices, segregation has been increasing in Germany throughout the 2000s in general (Dohnke et al. 2012; BBSR 2009). In cities with a significant share of housing vacancies segregation is even fostered through the unfolding dynamics (Grossmann et al. 2015). In recent years, all over Germany except in some constantly shrinking cities and rural areas, housing prizes have been more or less steadily increasing while the share of social and affordable housing diminishes (Holm et al. 2015).

Observers argue that energy-efficient retrofitting may become another driver for displacement, gentrification and segregation (Grossmann et al. 2014). In a non-empirical expertise for the association of German housing companies, it was suspected that energetic refurbishment will increase the social polarisation of cities (Gerth et al. 2011). Other authors make less ambitious claims by focussing on smaller scale effects, asking for the potential of displacement occurring through energetic refurbishments. On the one hand, energy savings for individual households are – due to high retrofitting costs and also constantly increasing energy costs – usually low compared to the rent increase related to retrofitting. In sum, the overall rent increase may then be too much for households to cope with (Holm 2011; Malottki & Vaché 2014). In practice, housing companies tend to combine energy-efficient retrofitting measures with other measures of modernisation – barrier-free bathrooms, new balconies, elevators etc. – so that energy-efficient retrofitting may not be the main driver for rent increase. A study summarizing the cost effects of retrofitting measures has shown that cost increase due to specific energetic refurbishment measures tends to remain below the calculated savings while it is the additional improvement measures which drive rents beyond the savings achievable (Neuhoff et al. 2011). Media reports have frequently shown examples where owners intentionally use energetic refurbishments to upgrade their housing stock, raise rents in rather large percentages and even intentionally dislocate residents³. A prominent example - also in the media - is Kopenhagener Straße 46 in Berlin, where one family in a house boarded up for energetic renovation refuses to move. They turn their fight for the flat into a documentation on an exemplary case of a renoviction processes in Berlin - a city where net rents grew by 40% from 2008 to 2015 (Kholodilin et al 2016, 494)⁴.

² We would like to thank the participants of the student projects “Soziale Spaltung durch energetische Sanierung?” at Faculty of Architecture and Urban Planning, University of Applied Sciences Erfurt (MA2M1) and at the Faculty of Spatial Planning, Dortmund University of Technology (A 05), for their empirical contributions to our research.

³ Examples are: for Stuttgart <http://www.s-oe-s.de/leitartikel/verkauf-der-lbbw-wohnungen-von-schwarz-rot-gruen-an-heuschrecken-verfuettert/> (Access 02.10.2014), for Berlin: <http://www.berliner-zeitung.de/berlin/streit-um-sanierungskosten-auch-ohne-luxus-unbezahlbar,10809148,24165934.html> (access 02.10.2014); RBB Abendschau as of 14.06.2014 (<https://www.youtube.com/watch?v=1hfY-gnR3lw>); for Germany in general <http://www.zeit.de/news/2014-03/22/wohnen-mieterbundvermieter-nutzen-sanierung-immer-oeffter-als-waffe-22100406>. (Zugriff vom 02.10.2014), WDR vom 28.9.2015 (<http://www1.wdr.de/themen/verbraucher/themen/wohnen/mieterhoehung-nach-modernisierung-104.html>)

⁴ See RBB Klartext as of 15.04.2015 (<http://pankowermieterprotest.jimdo.com/>)

3. Energy-efficient retrofitting in German cities: Two case studies

To illustrate the mechanisms of potential conflicts, we draw on our work with two student projects in Dortmund, North Rhine-Westphalia, and Erfurt, Free State of Thuringia. Two locations in each city were chosen for the analysis of retrofitting processes. Empirical work draws on statistical data on higher administrative levels, expert interviews and non-representative interviews with residents. Thus, results are non-representative and preliminary. Still tendencies are becoming clear.

Figure 1: The location of the case study cities Dortmund and Erfurt in Germany (Kaja Rocks)



Source: Unknown

3.1 Dortmund

According to statistics, Dortmund is the German city with the highest risk of poverty.⁵ In general, rents are still low, but as the number of residents and households has been increasing slowly over the past years, rents have also been rising, however gradually.

Dortmund's housing stock consists mainly of buildings built between the 1950s and the 1970s. The demand for housing has been increasing over the last years due to a higher number of residents (+4,400 from 2011-2013) and a higher number of households (+6,500 from 2012-2013). Increasing unemployment rates, higher dependency on social welfare (especially among elderly) and the number of house-seeking households reported at the

municipal housing department (+1,400 in 2013) point to a high demand for affordable and social housing. At the same time, the available social housing stock is decreasing from ca. 26,500 housing units in early 2013 to an estimated 20,000 until the year 2021 (AfW 2014, 27). Like other German cities, Dortmund sold part of its former social and municipal housing stock to international investors in the 2000s. So far, many of the new investors have been showing little commitment to the maintenance of their housing stock and been more interested in short-term returns. They are particularly involved in the purchase of comparably run-down housing stock located close to the inner city where margins for the rates of return are highest.

3.1.1 Quarter 1: South-Western inner city

The area was built in the 1950s by a local coal and steel company. After several changes of ownership over the decades, a stock company bought the estate in 2005. The estate consists of 250 housing units in 42 typical 1950s multiple dwelling row houses (see figure 3). It is located close to Dortmund's inner city. Railway and metro lines are in walking distance, as are local suppliers and services.

⁵ in 2012 26.4% of residents had an the average income below 869 Euro/month (poverty line) :

Figure 2: The case study area South-Western inner city



Source: (photos SH)

Many residents moved into the estate in the late 1950s, and the share of long-term residents is still high. Rents cover a range from 5.75 to 7.30 Euro per m²; the vacancy rate is below 1.5%. While the unemployment and poverty rates are lower than Dortmund's average, the average income only comes up to 89% (A05 2015, 50).

Energy-efficient retrofitting measures took place from 2011-2013 and were combined with other modernization measures where possible.⁶ According to residents, there had been generally a high need for maintenance and repair as the housing substance had been severely neglected for years. The company⁷ was very pleased with the way the retrofitting measures were realized and attributes their success to the fact that an experienced modernization and accounting unit at the company's headquarter had been responsible for the organization and realization. The deadlines could be met, all went according to plan. Particular attention was paid to reducing the barriers in the apartments so that elderly and handicapped people can remain independently in their apartments. The company used KfW funding. Its local representative assumes that about 30% of energy can be saved after retrofitting measures. He claims that most tenants are very happy with the result and that he does not know about any tenants' problems due to rising rents. Fluctuation of tenants is said to be no higher than usual.

This positive conclusion by the housing company can be contrasted with residents' observations. Most of the interviewed tenants do appreciate the new balconies and acknowledge that there are energy savings (however, not even close to the promised 30%). But many tenants also complained about the bad quality of the renovation works or questioned their necessity. On average, the rent increase seems to be above 7%. All interviewed residents knew of one or more households who actually left the area due to the rent increase.⁸ According to information provided by the tenants' association, rents in the South Western inner city after the retrofitting are around 6,37 Euro/m². This hits particularly those tenants hard who have been living in the area for a long time and thus still had very low rents before the renovation; households that had moved in during the renovation were confronted with higher rents right from the beginning (A05 2015, 81f).

⁶ Energy-efficient retrofitting included insulation works on the walls and partly on the roofs and cellars. In addition, balconies were constructed and electric lines renewed (A05 2015, 78f); works on the rain gutters took place and windows in the hallways were exchanged. When residents happened to move out, bathrooms, heating, electricity and windows were renewed inside the apartments also.

⁷ Information concerning the housing company comes from an interview with the head of the local branch office in May 2015.

⁸ We were not able to confirm these observations through statistics or interviews with displaced households, as this would have needed more time and resources. It would be worthwhile, however, to undertake further research in this regard.

3.1.2 Quarter 2: Dortmund-Löttringhausen

The Löttringhausen estate was built by Dortmund's municipal housing company in 1965. It consists of 3- and 4-storey lines of apartment buildings (see figure 4) and one high-rise building. The case study area covers 426 housing units in 48 buildings. It is located on Dortmund's southern edge and served by one bus line every half hour during the day. There is a local supply centre and a neighbourhood agency in the core of the area.

Figure 3: The case study area Löttringhausen



Source: (photos SH)

Many residents moved in when the estate was built. Thus, the average age is high: 40% are 60 years or older. Due to the large average size of the apartments, the area is also inhabited by young families with children. Unemployment rate is much lower than the Dortmund average (3.9% compared to 13.1%), poverty quasi non-existent (0.3%). The average income comes up to 193% of Dortmund's average (highest in Dortmund). Rents are around 6 Euro/m² and thus higher than the average rent in Dortmund, while the vacancy rate is lower (1.7%) (A05 2015, 65ff).

Retrofitting was announced in 2013, caused by fatigue fretting and municipal climate protection goals. An initial analysis of current and potential tenants' wishes by the housing company resulted in the combination of energy retrofitting with other modernisation measures.⁹

Apparently, the social structure of the area has not changed over the retrofitting works. The barrier-free bathrooms and the elevators allow many elderly residents to stay in the area and to avoid displacement (A05 2015, 70) and seem to have left a much greater impression on tenants than energy-efficient retrofitting, which is seen as a more or less agreeable side-effect. How much energy can be saved is not yet verifiable since the works were only recently finished. Rent increase was individually determined according to the tenants' rent contracts because the housing company set its priority to affordability rather than to the highest-possible returns (A05 2015, 72f).

Since the retrofitting measures in the area took place in three subsequent phases, some tenants tried to move into the already-renovated areas in order to avoid the hassle related to the construction work (A05 2015, 67). Interviewees from the residency, the housing company and the neighbourhood agency agreed that the rising rents due to energy retrofitting have not yet caused any evictions. Most interviewed residents stated that they were able to pay higher rents without any further restrictions in other spheres of life. On the contrary, they argue that their rents are still comparably low.

⁹ Retrofitting measures included the installation of central gas heating, an exchange of windows, the insulation of the basement and the renovation of the façade. In addition, elevators and – optionally – barrier-free bathrooms were installed. The outdoor facilities were also newly designed and equipped with playground furniture so that the area is also attractive for young families (a kindergarten and an elementary school are close by). A new neighborhood agency, paid by the housing company, supports in particular elderly residents in terms of health and care issues, leisure and communication.

3.2 Erfurt

Erfurt is a medium sized city in the eastern part of Germany, the capital of the state of Thuringia with ca. 210.000 inhabitants in 2016¹⁰. Due to the central functions of the city, the period of the post-socialist transition did not lead to extremely high unemployment rates as it did elsewhere. The city's population is currently regrowing after years of slight population decline. Thus, the housing market went through a phase with housing vacancies, but not as dramatic as in many other Eastern German cities. Housing prizes have been rather high and stable as compared to other eastern German cities (rent index between 3,95 EUR and 9,10 EUR as of 2014) but certainly much lower than housing prizes in Munich, Hamburg or Frankfurt.

3.2.1 Case study Wacholderweg, district Wiesenhügel

The case study Wacholderweg comprises one block of flats in a post-war housing estate, built in the 1980s. It has five stories with 10 flats per entrance. In the administrative district 'Wiesenhügel', ca. 5345 inhabitants lived as of Dec. 31st 2014 with an average age of 46.8 years. Whereas between 1995 and 2012, inhabitant numbers fell to nearly half of the amount of inhabitants from before 1989, it has been seeing a slight regrowth lately (net gain of 233 in 2014).

The 1990s brought a first wave of modernisations incl. facades, windows, sometimes balconies were added. Between 2005 and 2010, again measures were undertaken in some parts incl. a make-over of the stair-cases, elevators, new balconies etc. The green spaces were improved around the blocks. Today, Wiesenhügel appears as a fully refurbished, nicely located area at the fringe of the city close to the recreational area 'Steigerwald'. It is well equipped with infrastructure in terms of social services, shopping facilities or public transport. As the census in 2011 revealed, housing vacancies were rather low with just 3% (City of Erfurt 2013).

The block under investigations belongs to the municipal housing company, which holds 1,164 housing units in the district. In a recent project concerning energy savings in the district, the goal was to reduce heat energy consumption by 40% through retrofitting measures and educational programs on how to efficiently heat and manage fresh air. This has been funded by the KfW housing programme.

The refurbishment is recalled by residents rather differently. Whereas some of the residents say that they do not know what this was all about and complain about the dust and hustle with the construction works, others clearly remember a mobile info-bus explaining the intended energy savings. Most inhabitants are rather satisfied with the process. They recall that information came early, the process was by most interviewees perceived as a fair one (MAM1 report).

¹⁰ Press release City of Erfurt, <http://www.erfurt.de/ef/de/service/aktuelles/pm/2016/123423.html>

Figure 4: The case study area Wacholderweg



Source: (photo Max Murek)

Rents did increase, but given the limits of the data, an overview cannot be provided and not all residents openly spoke about financial issues. An example can illustrate the situation¹¹: A couple, 58 and 61 years of age, remembers that information was provided early, they do recall the bus providing information and that all deadlines were kept. Nevertheless, they are rather unhappy with the process and outcome of the refurbishment. The construction works meant that for several months, the kitchen was out of use due to the dust and dirt. The work was done in small steps so that the process lasted long. For their flat, they evaluate the outcome rather negatively. The walls were broken up for the new electricity, parts of their flooring is in a worse state than before. Most importantly, the new ventilation system leads to a situation where they actually use more heating energy than before. To avoid the loss of warmth, they put cello-tape over the ventilation slots. The net rent for the 84 m² flat increased from 462 Euro to 544.13 Euro. Still, this is less than was announced (increase to 605 Euro). For heating, they say that there are no savings. The couple has a monthly budget of about 2,000 Euro.

The couple recalls that with the announcement of modernisation, most neighbours moved out. About their new places of residence, no info was given. What might have had an impact on the motivation is that some years ago, the company intended to demolish this block which led to conflicts and protest, as interviewees reported. In our interpretation, the retrofit might have been the straw that broke the camels back, and that made residents leave. To what extent the announced prize increase played a role here, we do not know. Today, young households have moved in and the couple feels a bit alienated with their long-term neighbours gone.

In other entrances, people were mostly satisfied. Often they were not willing to be interviewed and closed the door shut saying that they are “satisfied with everything”. The issue of losing warmth in the flat has been mentioned more often, though. People help themselves by using cello-tape, but a reduction of heating energy was rarely perceived. Housing mobility seems to be induced by a combination of factors rather than the prize increase of the retrofit alone. Older residents report on high fluctuation and the loss of neighbourly networks in general. An old woman said that in her entrance only four of her older neighbours are still there and the house is rejuvenating, some students come in.

¹¹ Interview conducted by Mandy Krämer and Max Murek

3.2.2 Case study Clara-Zetkin-Street, district Daberstedt

The houses of the case study in Daberstedt, were built in the 1920s for railway workers. They are situated in close proximity to the station, in a central location, well connected to social and other infrastructure. Daberstedt has become a desirable housing area, comprising mostly of older housing stock in well refurbished state. It is located in the inner south of Erfurt, close to some other more prestigious old built-up areas.

Daberstedt has a stable population of about 13,500 inhabitants. It is slightly ageing with an increase in average age from 47.1 years in 2006 to 48.3 years in 2011 (44.3 in Erfurt). Unemployment rates are lower than the city's average and have been declining as has unemployment in the city in general (Daberstedt from 7.9 (2006) to 5.1% (2011); Erfurt from 11.3% (2006) to 7.0% (2011) (City of Erfurt 2013)).

The houses under investigation belong to a large private housing company, actually the same owner as in the Dortmund-South-West case who bought these houses in 2001. They were unrefurbished, but comparatively well maintained for older housing stock in inner city locations of post-socialist Germany. The residents of the houses are mostly older and retired households. Strong neighbourly bonds have developed over the decades. Here, we found a conflictive situation with protest forming but also frustration.

Figure 5: The case study area Wacholderweg



Source: (photo Max Murek)

Different from the Wiesenhügel case, the process of refurbishment is contested. The residents feel treated unfair, mistrust is the dominant state of mind towards the landlord. Communication with the company is difficult, questions remain unanswered, contact persons are not available. Residents received different information. Those with a long-term contract from before 1990 received more information, and they received it earlier. This potentially has to do with their differing rights resulting from the old contracts incl. a right

to oppose against refurbishment measures in case of rent-increases. The older residents reported visits of employees from the housing company where information was given and consent to these plans was asked rather casually. Others were contacted and informed later by mail with the announcement of refurbishment measures incl. energetic refurbishment but also a make-over of stair-cases, balconies, the roof, the basement, the green areas surrounding the buildings etc. In the opinion of residents, many of these measures were pointless. Some stairs which were to be refurbished did not even exist. In the case of one couple who shared their documents, net rents increased by 95 Euro per month¹². A saving on energy bills as of 0.20 Euro/m² and month was calculated in the announcements. Because the construction work was only just about to begin, it was still unclear how actual energy bills will develop. Residents became even more suspicious as rent increases were not calculated by the same means but differently from household to household. Those residents with a pre-1990 contract had the highest increases in net rents per m² (numbers not available in detail), recent newcomers the lowest. This supports the assumption of residents that the main goal of rent increases is to raise rents up to a certain level instead of refinancing retrofit let alone saving energy or protecting the climate.

Two households in one entrance, both students, had already moved out, others were thinking about it. The main motivation reported here is to escape the price increase.

4. AMBIVALENT FINDINGS: DOES ENERGY-EFFICIENT RETROFITTING CAUSE DISPLACEMENT?

We argue that displacement occurs at the specific intersection of policies ignoring, not hindering or even supporting speculative investments and intended dislocations, especially in places of high housing demand and lucrative investment prospects for real estate companies. The cases show that the type of house owner (municipal housing company versus company listed on the international stock exchange) influences their practice to address the issue of retrofitting and to respect (or not) residents' wishes and needs in their rent policy. Many residents in our case studies did not reject energy efficiency and additional modernization measures per se or partly even welcomed them. However, in the case of the private housing company, residents did not consider rent increases as adequate, and lower-income residents who are particularly sensitive to housing cost increase seem to have been induced to move out of the area. In contrast, long-term and elderly residents seem to be more sensitive to the discomfort and inconvenience caused by the construction works as such, and apparently tried to avoid them by moving into apartments in the same area where construction had already been finished. In the particular case, this option existed due to comparably high incomes of residents.

We found that the housing demand (or shortage) in a particular neighbourhood impacts the potential returns for the companies and thus their behaviour towards their tenants. Landlords clearly follow different goals. Whereas the private company under investigation apparently gave little priority to keeping their tenants, the municipal companies provided much more information and more transparently revealed the composition of costs. Rents have been rising in all cases, but interviews suggest that they have been felt harder and less considered justified in the case of the private company. Here, prize-related outmigration seems to occur rather often, while satisfaction of remaining residents in municipal company's buildings (with specific exceptions in Erfurt) is rather high and outmigration here seems to have more to do with other factors.

We can also see that affordable housing is lost through energetic refurbishment which affects the housing market on the city-wide level. The engagement of private investors is

¹² Interviews conducted by Tom Wedding and Yvonne Rubel.

focused on profitable neighbourhoods where the gap between current rents and rents which could be realised due to location factors (proximity to the city centre, to local suppliers and/or other amenities) is great. Thus it is these locations in particular that can come into the focus of private investment. Households with small or sometimes even medium incomes who live in these areas today do usually not have many alternative housing options close by. So they either cope with rising rents, or they have to move elsewhere.

5. POLICY IMPLICATIONS

We can see that in the case of energy-efficient retrofitting the organisation of (particularly rental) housing through market mechanisms poses new problems for low-income households in addition to those already well-known and discussed.

State policies for energetic retrofit, in the German case, allow market forces to work in favour of segregation and displacement, leaving the social responsibility largely to homeowners. They allow for extensive modernisation measures and the addition of up to 11% of the total modernisation costs to the net-rents (§559 BGB) – an addition which tenants continue to pay even after a compensation for modernisation expenditures of the landlord has been reached. Thus, landlords benefit in the long run from this regulation, while tenants pay the multiple costs. There is no barrier to drastic rent increase. Media report speculative cases with increases of net rents even over 100%. At the same time, reports show how especially housing cooperatives retrofit their stock and avoid an increase in housing costs altogether¹³. Some observers thus demand that the transfer of costs to tenants should be completely abolished. Instead they suggest direct subsidies, interest rate reductions and especially higher write-off rates for private capital to invest into energy-efficient retrofitting (Bohne 2013, 7f). Subsidies should be linked to extensive consultation and to a concept for energy saving so that the necessity of measures and their efficiency can be estimated ex-ante. By integrating energy standards into the rent index, as the Dortmund council has done recently, retrofitting measures could be rewarded with higher potential rents while lower energy standards may lead to rent deductions. Also, more measures could be taken that tenants' own initiative to retrofit their apartments be supported (Bohne 2013, 8).

Instead, exemptions to tenants' rights to rent reduction – which is generally granted in case of nuisance caused by modernisation works – were adopted in May 2012 to increase the motivation of landlords to retrofit their housing stock and thereby lift up the overall retrofitting quota. In a newly introduced law to limit rent increases (Mietpreisbremse), cases of energetic retrofit are also explicitly excluded¹⁴ in order not to keep owners from energy-efficient retrofitting. While there is an obligation to report which retrofitting measures were taken (at least when KfW or other funding is utilized), it is not necessary to prove that actual energy savings could be achieved, so the danger of abuse of the regulations exists. In effect, especially in marketwise valuable locations, dislocations can be fostered. The less influence municipalities have on housing companies and the more these companies are committed to market forces, the lower is tenants' involvement in decision-making processes.

There are structural conditions which potentially catalyse the displacement and segregation effects in tight housing markets. On the local level, a fading out of social housing schemes

¹³ As an example: WDR vom 28.9.2015 (<http://www1.wdr.de/themen/verbraucher/themen/wohnen/mieterhoehung-nach-modernisierung-104.html>)

¹⁴ Actually, the rent brake mechanism does not seem to be effective in any regard. Researchers from the German Institute for Economic Research (DIW) have shown that it has had little or even no impact on actual rent levels one year after its introduction; rents have still been rising above the prescribed levels (Kholodilin et al. 2016).

plus an emphasis on privatisation left cities with limited steering capacities. On the national level, climate mitigation policies contradict the goal of protection of tenants against rising housing costs and displacement. Even for the provision of social housing, energy efficiency obligations lead to high costs for new built social housing and thus contradict any effort to provide affordable housing for lower income groups. The currently low interest rates for private capital together with a growing gap between incomes and wealth of households in Germany promote more real estate investment; in addition, foreign investment in the German housing market has been on the rise. Instead of protecting tenants through policies, energetic retrofit provides a further window of opportunity for speculative investments and respective steep rent increases. The newly funded “Alliance for affordable housing”, a state initiative lead by the Federal Ministry for Environment, Nature Conservation, Construction and Nuclear Safety, focuses on new constructions of affordable housing, not questioning the policies around energetic retrofit.

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