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Community-oriented urban policy and local earnings – a complicated relationship

Uwe Neumann[1]

Abstract

The literature on regional agglomeration suggests that local economic revitalisation is likely to involve a rise in local wages. In the context of urban regeneration, community-oriented policy envisages to improve prosperity among the residential population of deprived neighbourhoods. Yet, due to an ever-increasing preference of households to reside at central locations this policy may spur gentrification if outsiders are attracted to new jobs and upgraded housing environments. Using Germany as a case study, the analysis explores whether local economies have received a boost that may have affected household sorting and local household income during the past two decades. The study reveals no considerable shift in sorting that would indicate gentrification. With a view to income over the past decade local households with a middle or higher income in programme areas have kept up with overall income growth and low-income households have experienced zero growth but appear to have thereby performed slightly better than their counterparts elsewhere. Moderate funding of urban regeneration in combination with support to local communities is not capable of providing a remarkable boost, but it may bring about improvements for the residential population without accelerating gentrification.

Keywords: urban policy, local economies, household income, gentrification

JEL Classification: C21, C23, O18, R23, R31, R58

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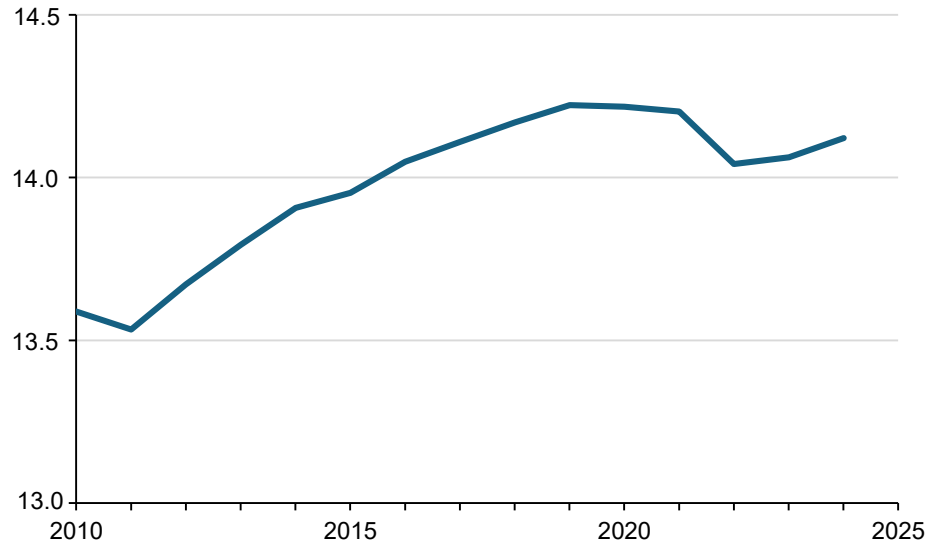
1. Introduction

The literature on geographical agglomeration expects that regional policies that boost productivity, attract investment, or support specific industries can lead to higher local wages (Head and Mayer 2006). The so-called "market potential" (or "market access"), which represents the total demand for the products or services provided by a firm, comprises the local demand and the demand from customers in other regions. It is affected both by transport costs and by the density of competition with other firms, which increases in line with market size. A higher "real market potential", which takes into account this trade-off between total demand and competition, will assert a positive influence on wages and wage growth.

For many decades urban regeneration policy focussed on the upgrading of local housing environments. More recently, community-oriented initiatives designed to raise both labour demand (e.g. by fostering entrepreneurship) and supply (e.g. by providing support in job search and training) have accomplished these measures. It is expected that this integrated policy will raise local economic potentials and, thereby, boost local earnings.

Whereas a revitalisation of local economies is desirable, it may bring about disadvantages for poor residents. While the concentration of poverty remains a feature of inner cities, in many industrialised countries, most notably in North America and Europe, over the past decades household location preferences have shifted in favour of central urban areas. In fact, a so-called "gentrification" of deprived quarters involving a renewed inflow of more well-off households has become a widespread trend, often leading to a rise of housing costs and displacement of low-income households (Christafore and Leguizamon 2019). Surely, in Germany a "donut effect" (i.e. a renewed desire to settle at suburban locations) leading to a halt of population growth among the largest cites during the Covid pandemic (Delventhal et al. 2022; Ramani and Bloom 2021) has again been superseded by continued growth of the population share of the ten largest cities since 2022 (Figure 1).

Figure 1
Population share of the ten largest cities* in Germany
in %



Author´s calculation using data from the Federal Statistical Offices and the Statistical Offices of the Federal States in Germany (2025). *Berlin, Hamburg, Munich, Cologne, Frankfurt/M., Stuttgart, Düsseldorf, Leipzig, Dortmund, and Hanover

The danger of displacement of lower-income households has been discussed most prominently in the context of very large urban regeneration measures such as those carried out in the London Docklands since the 1970s (Brownill 2010). Yet, so far only relatively few studies have analysed the outcomes of a more integrated approach to urban regeneration policy that includes community-oriented initiatives, particularly with a view on local residents in renewal areas (Bartik 2012, Jump and Scavette 2024).

Apart from facing difficulties in gaining access to suitable data with neighbourhood reference, evaluation studies are confronted with conceptual challenges, since the empirical framework of this research relates to larger territories. The following study utilises basic assumptions from the literature in regional agglomeration, which also apply to the neighbourhood level.

The German nation-wide “Social City” programme serves as a case study. The Social City was established in 1999 with the goal of supporting regeneration and strengthening local civic society in deprived urban neighbourhoods.

As Ellen and O´Regan (2010) point out, a great share of studies on neighbourhood dynamics so far have drawn on data from the U.S. A comprehensive study of Europe´s largest national economy provides an alternative view. The following two questions guide this research:

1. Has community-oriented urban policy in Germany over the past two decades upgraded local firms´ market potential and thereby contributed to an income increase among the residential population?
2. Has urban policy initiated sorting of higher-income households to deprived areas and/or have lower-income households benefitted in terms of higher earnings?

The findings suggest that so far, the moderately funded German programme has not initiated displacement of poor households on a large scale. Yet, it appears that the boost provided to local economies served to prevent further deterioration and to counteract detrimental neighbourhood effects at best. Given a continuing rise of rents in urban areas, poor households may nevertheless find it more difficult to afford residence among upgraded housing environments in the forthcoming years, particularly in large cities.

2. Literature Review

For several decades after the Second World War, urban renewal policy was concerned mainly with housing refurbishment and upgrading of housing environments. Regarding the housing market effects of this policy, a sound conceptual background has been provided by a comprehensive literature on neighbourhood sorting (Kuminoff et al. 2013).

The methodical approach for the outcomes of neighbourhood-level policies directed at local labour markets derives from the literature on regional economics. This literature received a seminal input by Krugman (1991), who explains agglomeration by the interaction of increasing returns, trade costs and factor price differences (e.g. labour), while previous research specified agglomeration as a multiplicative external effect in the firm´s production function. The main focus in this literature, which has been subsumed as the “new economic geography” is on

economic growth, yet it is also concerned with wages and wage growth. In their empirical papers, Redding and Venables (2004), Hanson (2005) and Head and Mayer (2006) link the regional distribution of production and wages to the regional distribution of demand, assuming that due to increasing returns to scale, firms will be more profitable when they agglomerate in regional clusters.

Alternative explanations link regional variation in wages to differentials in technological spillovers and human capital externalities. For example, Ciccione (2002) shows that wages across European regions are positively correlated to the regional population density. Further, Brülhart et al. (2020) argue that from a global perspective, the market potential as defined by this literature is becoming less and local employment density more important for economic growth. The following analysis refers to urban neighbourhoods, which are located in proximity to central areas with a high employment density. The additional policy impact here is expected to derive primarily from a boost to local firms´ market potential.

A specific field of research has demonstrated that undesirable neighbourhood effects on individual outcomes (e.g. employment) are likely to emerge among the residents of poor neighbourhoods (Wilson 1987, Durlauf 2004, Van Ham et al. 2018, Wixe et al. 2025). It is plausible, therefore, that a boost of neighbourhood economies might diminish these disadvantages.

Different studies have been concerned with urban policy oriented at labour demand, e.g. by fostering entrepreneurship (Welter et al. 2008) or providing tax cuts, or at labour supply, e.g. by supporting job search and training. All in all, the literature has found mixed results concerning the labour market outcomes of neighbourhood-oriented policy (Neumark and Simpson 2015).

The evidence concerning the outcomes of urban renewal in terms of their potentially unintentional contribution to gentrification is mixed, as well.

Table 1
Gentrification and displacement - findings of selected previous studies

	study region	period	approach	main findings
Hamnett (1973)	London	1961-1971	correlation analysis suing census data and own surveys	gentrification of inner London/Islington in line with housing renovation
Smith/Williams (ed.) (1986)	Australia, Canada, USA, UK	1960s-1980s	case studies	gentrification observable but causes, scope and perspectives unclear
Friedrichs (1987)	Hamburg	1983	survey among mobile households	small influence of urban renewal policy on back-to-city migration
Kahn (2007)	US	1970-2000	DID (TWFE regression), panel data	new “walk and ride” stations induce gentrification
Shaw (2008)	Australia, Belgium, Canada, New Zealand, South Africa, US, UK	1960s-2000s	Special Issue of Urban Studies on gentrification	local governments can affect housing markets by land use policy, but more effective national policy – construction of social housing – is on the retreat
Chapple (2009)	Bay Area, CA	1990-2010	difference in means	identification of factors predicting the susceptibility to gentrification – proximity to rail transit dominates
McKinnish et al. (2010)	US	1990s	logit regression model, census data	gentrification due to income gains by black-high-school graduates and in-migration
Boterman/van Gent (2014)	Amsterdam	1999-2006	logistic regression models, register data	tenure conversion as government strategy to alter social composition leads to change in social, ethnic and demographic composition
Deka (2016)	New Jersey	1990-2013	ANOVA and (pooled) regression,	new rail transit affected housing prices but less impact on rents; no displacement
Hochstenbach (2016)	Amsterdam	1999-2014	descriptive evaluation	housing reconstruction (demolition and sale of social rental dwellings) fosters gentrification
Zuk et al (2018)			literature review	focus on new rail transit as driver of gentrification
Christafore/Leguizamon (2019)	30 largest Core Based Statitical Areas in the US	2000-2010	cross-sectional and panel regression	inflow of higher-income households in gentrified neighbourhoods outweighs outflow of lower-income households
Andersson et al. (2022)	Sweden	2015	k-means-cluster-analysis	tenure mixing in smaller scale building complexes prevents gentrification

Author´s tabulation

Table 1 highlights the findings of several previous studies on the possible outcomes of regional and urban policy regarding gentrification. In a survey among mobile households in Hamburg, for example, Friedrichs (1987) reveals that the relevance of urban renewal programmes with respect to back-to-city migration is small. The term “gentrification”, which refers to the “invasion” of low-income areas by higher-income households, has first been utilised with respect to London (Hamnett 1973). In England, there has been widespread consent for a long time that “urban sprawl”, i.e. the ever-growing expansion of urban settlements to areas surrounding London, is undesirable. In 1969, a Housing Act was passed, which introduced grants supporting the refurbishment of private housing. Apparently, in parts of Inner London this legislation succeeded in motivating considerable brownfield development initiative, which focusses on the renovation of existing housing stock. While such development was regarded as effective in counteracting urban sprawl, it was also found to displace lower-income residents, as it resulted in considerable increases in rents.

A collection of case studies from Australia, Canada, the U.S. and the UK by Smith and Williams (ed.) (1986) demonstrates that by the 1980s, gentrification had become a common trend in many industrialised countries. In London, while the East End had not been part of large-scale gentrification in the 1960s and early 1970s due to its less attractive housing stock, in line with the abandonment of port functions in the docks in closest vicinity to the City, in the 1970s and particularly the 1980s the London Docklands became focus of large-scale urban renewal (Brownill 2010). This redevelopment implied mainly the construction of new housing on abandoned dockland grounds, which were now deemed desirable due to their relatively central location and the attractiveness of their waterfront environment (Hoyle 1988).

Several papers reveal that infrastructure developments affect housing prices. In terms of new rail transit routes the opening of new access points may result in gentrification among neighbourhoods, which had been relatively undesirable as residential location previously. Obviously, given a widespread desire for urban residence the considerable upgrading of public

transport access can alter the location factors of a neighbourhood quite fundamentally (Kahn 2007, Chapple 2009, Deka 2016, Zuk et al. 2018).

Further, as two studies from Amsterdam reveal, any policy designed deliberately to foster tenure conversion from rented to owner-occupied housing is very likely to spur gentrification (Boterman and van Gent 2014, Hochstenbach 2016). Andersson et al. (2022), on the other hand, argue that policy initiatives aiming at tenure mixing may succeed in preventing overall gentrification, as apparently diversified tenure structures turn out to stabilise local housing prices. McKinnish et al. (2010) show that in US cities educational attainment of black high-school graduates may spur gentrification of neighbourhoods, where black residents predominate. In the long run, however, this does not appear to result in displacement of black communities. In an article reviewing various case studies Shaw (2008) points out that policies designed to foster a stronger "social mix" in deprived neighbourhoods rarely succeed in preventing displacement of poor households. She concludes that the most obvious and arguably effective policy interventions comprise the building of social housing and planning regulations preventing the conversion of commercial and residential land uses.

Since the 2000s, an increasing desire to live close to urban amenities has motivated a reurbanisation trend in Europe (Haase et al. 2010) and North America (Couture and Handbury 2017). As many deprived neighbourhoods are located in close proximity to the most favourable urban locations, it is likely that regeneration of these neighbourhoods may render them considerably more desirable as residential location from the view of higher-income households.

3. Policy Background

Over the past decades, in spite of considerable suburbanisation, in Germany many neighbourhoods in close vicinity to city centres have never ceased to attract high-income households. As early as 1971, the Law of the Regulation of Conversion from Rental to Owner-Occupied Apartments was enacted in order to improve tenants´ rights and to prevent landlords

from converting apartments into ownership with the intention of re-letting or selling at higher prices. The aims of the German legislation where thus quite contrary to those of the contemporaneous British Housing Act, as apparently refurbishment of urban housing (regarding popular Wilhelminian style buildings from the late 19th and early 20th century in particular) and displacement of lower-income households was already common.

Also in 1971, a national urban renewal programme was implemented (Städtebauförderung). This programme involves collaboration in the planning and implementation of renewal schemes for specific urban districts across administrative levels i.e. among the federal government, the federal states, and the municipalities. In 1999, the scope of this policy was significantly expanded with the introduction of the "Social City" (Soziale Stadt). The Social City represents a policy approach, which combines urban regeneration with the support of local communities in deprived neighbourhoods.

In 1999, 161 neighbourhoods in 123 cities comprised the "first wave" of programme areas (Becker and Löhr 2002). Programme areas are usually subject to a ten-year policy process incorporating e.g. the refurbishment of buildings, environmental upgrading, provision of consulting services for businesses and entrepreneurs and additional support of the local education system, funded by the federal government, the Länder and municipalities.

The programme comprises an amalgam of various policy fields. A case study from six cities in North Rhine-Westphalia, Germany´s most urbanised federal state, found that the role of measures directly connected to labour market outcomes varies considerably between programme areas (from below 1% to over 50%, Neumann et al. 2013). Since it is not viable to isolate the weighting of specific policy goals among the Social City programme measures, the potential policy impact on local earnings under review in this study is therefore understood to derive from the total boost to local markets provided by the neighbourhood-oriented policy measures combined (see section 5).

Over the past two decades the “Social City” has expanded considerably. By 2019, various initiatives located in 965 neighbourhoods of 544 municipalities altogether had received support from this programme (BMI 2019). Federal funding is moderate, amounting to around 6 million euro per programme area over the total period. Funding is accomplished by federal states and municipalities, such that federal funds usually comprise a third of total programme funds. Previous research suggests that during the period 2009-2021 programme areas experienced a significant surplus in the increase of housing prices and rents in comparison to non-supported reference areas (Neumann and Yasar 2024).

It is a general characteristic of the Social City programme, on the other hand, that it does not include the construction of social housing or implementation of planning regulations restricting the conversion of industrial sites.

4. Data

In order to examine the policy outcomes across Germany, the analysis uses two data sources:

1. RWI GEO-GRID
2. The German Socio-Economic Panel (SOEP)

In combination, they provide a suitable empirical base in order to examine the outcomes of the the Social City Programme with respect to household income. The first data source, RWI-GEO-GRID, comprises data on the residential population, compiled at the level of 1 km²-grids by microm Micromarketing-Systeme und Consult GmbH, a market research firm specialising in territorial analysis (Breidenbach and Heinze 2025). The data will refer to the period from 2009 to 2021.

The second source, the SOEP, has become a standard data source for individual and household-level analysis. It is one of the largest and longest-running multidisciplinary household surveys worldwide and has been utilised in manifold studies contributing to the international discussion, e.g. on labour economics (Beckmannshagen and Schröder 2022) and regional economics

(Bertram et al. 2022). Started in 1984, the SOEP is an annual representative study of private households in Germany, comprising various topics, e.g. household composition, residence, earnings and occupation of household members. A new refreshment sample introduced in 2018 enhanced the value of the SOEP as a data source for research on neighbourhoods and urban policy (Steinhauer et al. 2020). This sample was designed specifically to comprise a sufficient number of households from Social City programme areas, providing information about nearly 1,000 Social City households. These can be traced back as far as 2000, i.e. the very early phase of programme implementation. In the course of survey expansions, the number of households residing in "Social City" areas was even increased up to 2,641 until 2019. This study uses SOEP wave 39 from 2024.

5. Approach and descriptive statistics

In the first step of the analysis, income regressions based on data from RWI-GEO-GRID will analyse income growth in programme and non-supported reference areas. In order to describe the relation between local characteristics and wages, at the level of neighbourhoods it is important to note that the total demand relevant for a firm producing in region j is likely to differ from the total local (neighbourhood-level) demand for all firms capable of serving market i for two reasons (Head and Mayer 2006). First, this firm can export to other regions. Second, the firm must divide each local market with its competitors. As neighbourhoods may represent the complete (or a large share of the) territorial layout of a firm´s market less frequently than larger regions, cross-regional exports will be even more salient at the neighbourhood level. It is true, though, that a certain share of all businesses, usually from sectors such as retail, health, catering, and handicraft, are largely tailored to local demand. Läpple (2000) estimates that in Hamburg, in 1997 around 16% of all firms were attributable to this kind of "local and quarter economy".

In their approach to model the relationship between local characteristics and wages, Head and Mayer (2006) therefore consider the share of each market that a firm obtains in each region, which depends on its production and trade costs relative to its rivals. In order to quantify the total local demand for a firm they distinguish between a "nominal market potential", which would represent a pure measurement of the size of the local market, and a "real market potential" (RMP), which takes into account that a large market is well-served by existing firms and will therefore offer less potential for profits than a smaller market served by fewer firms. In their formal account, they demonstrate that the real market potential RMP at location i relates to transport costs, "export sales" from firms out of region i and a "supplier index" representing competition as in equation (1)

$$RMP_i = \sum_j E_i * S_i, \varphi_{i,j}, \quad (1)$$

where E_i constitutes the total local demand available for all firms serving region i,

S_i is a "supply index" that comprises the density of alternative suppliers (firms) in region i, and

$\varphi_{i,j}$ represents trade costs from location i to all other locations j,

The labour requirement per firm in region i is assumed to depend on output per firm and the returns to education as in equation (2)

$$l_i = (\alpha + \beta q_i) \exp(-\rho h_i) \quad (2)$$

in which l_i = labour requirement per firm in region i,

α = fixed labour requirement,

q_i = output per firm in region i, and

h_i = average years of schooling

Since ρ accounts for the marginal returns to schooling it measures the increase in productivity from an extra year of schooling. Since it is assumed for a productivity increase to be connected adversely to labour requirement, the coefficient sign is expected to be negative.

The respective wage equation transforms labour demand to wage (growth) in region i. Output per firm is represented by the "real market potential" RMP and taking logs results in linear-in-logs equation (3)

$$log\, w_i = \alpha + \beta log RMP_i + \rho h_i + \varepsilon_i \quad (3)$$

where w_i represents average wage (growth) in region i. Equation (3) provides the conceptual background for the empirical analysis. As Head and Mayer (2006) point out, the wage equation holds for both cross-sections and time differences. In order to retrieve neighbourhood-level outcomes with respect to the Social City programme, the "real market potential" RMP is specified with reference to programme areas, reference areas and all other regions, as in equation (4),

$$logY_{j,kt} = \alpha + \beta_1 logS_{j,t} + \beta_{2N} N_{j,t} + \beta_3 SC_k T_t + \beta_4 REF_k T_t + \beta_5 REST_k T_t + \beta_6 SC_k + \beta_7 REF_k + \rho h_j + \mu_j + \varepsilon_{i,jkt} \quad (4)$$

in which Y is the average household purchasing power[2] in 1 km² grid j in year t = 2009, 2010, …, 2021. S represents the supplier density in terms of the number of enterprises. Further demographic neighbourhood characteristics in 1 km² grid j are described by vector N including the population density (which is assumed to relate negatively to transport costs), the shares of foreigners, and the share of one-person households in year t. Human capital h is considered in terms of the unemployment rate in grid j.

The designation of Social City programme zones is accounted for by dummies SC_k, which identify k = 1, 2, …., 502 5-digit postcode zones including programme areas, which had received funding from the Social City by 2008. The SC_k thus account for locational effects

[2] RWI GEO-GRID refers to the annual household-level purchasing power, which comprises labour income, capital wealth, rental and leasing income minus taxes and social security contributions, as estimated by microm (Breidenbach and Heinze 2025). On average the purchasing power in euro is higher than the annual sum of the self-reported monthly net household income registered by the SOEP (Tables 2 and 3). The SOEP questionnaire asks for the net monthly income, after deductions for taxes and social security, but including regular income such as pensions, housing allowances, child benefits, grants for higher education or maintenance payments (SOEP Group 2024). In their self-assessment households may exclude some sources included in the estimations by microm. Furthermore, wealthy households (with assets comprising over 3 million euro) are underrepresented in the SOEP (Schröder et al. 2020).

representing local firms´ market potential, which is assumed to affect the local household-level purchasing power. T are year dummies and coefficients β_3 display the variation of purchasing power changes for the programme zones, identified by the interaction of time- and neighbourhood fixed effects.

Coefficients β_4 represent the variation of purchasing power changes for reference areas REF_k, which comprise all 5-digit postcode zones that share a common border with the postcode zones of programme areas, again identified by the interaction of time and community dummies. Since funding by the Social City is moderate (see above), local initiatives focus on specific projects such as the refurbishment of a specific commercial building, the establishment of a local neighbourhood management office or the upgrading of a central market place (Welter et al. 2008). As a whole, programme measures are directed towards specific locations and/or target groups within programme areas. Due to the focussed policy input and moderate funding, the programme is far from applying even to the complete territory of the postal code zone, in which it is located (representing districts with 10,000 inhabitants on average in 2022), let alone neighbouring zones. The surrounding postcode zones in combination comprise the reference region for each programme area, i.e. each Social City area is assigned precisely one reference area.

In this respect, designation of reference areas here follows the strategy proposed by Card and Krueger (1994) in their study of the employment effects of the introduction of minimum wages among fast-food stores of New Jersey. They use stores from neighbouring East Pennsylvania as control group, since these are characterised by a similar regional economic context and similar seasonal patterns of employment. For the purposes of this study choosing nearby neighbourhoods as control group is feasible also, since these are characterised by similar basic assets, e.g. in terms of their accessibility, distance to city centres and industrial sites. It can be expected that economic “shocks” due to regional or trade-specific economic performance or

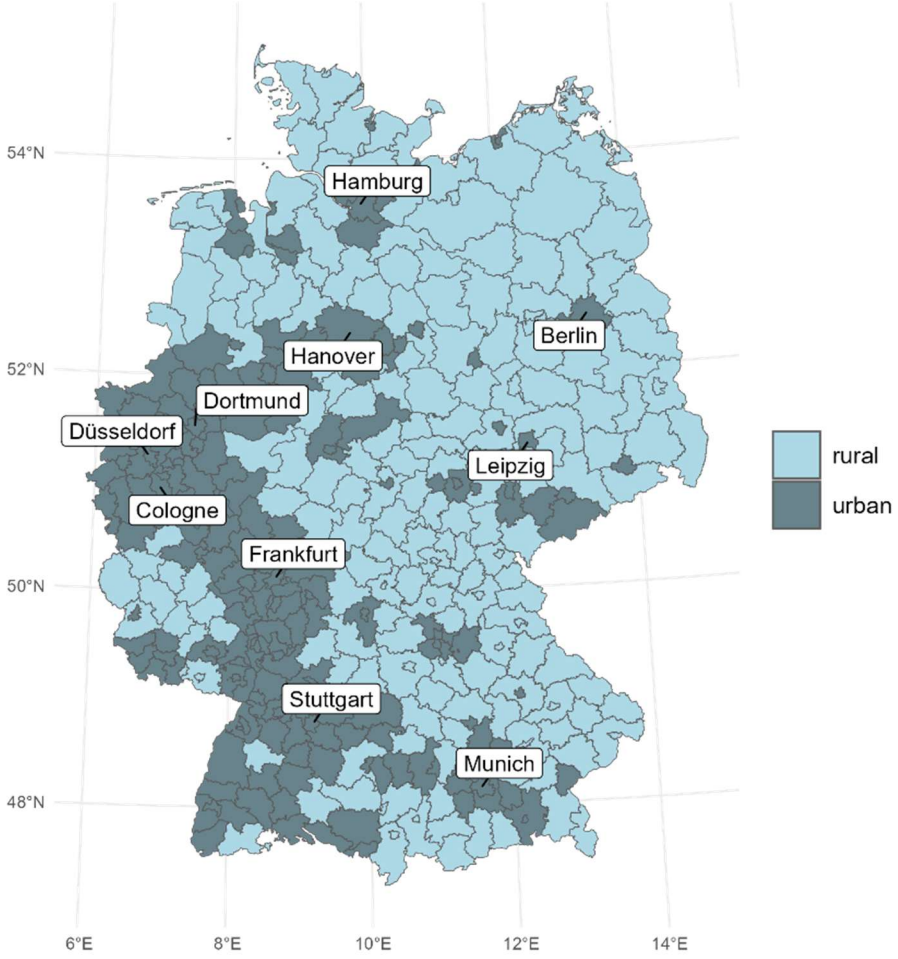
more local concerns such as the closure of a large factory would affect the population and businesses of nearby districts in a similar way.

Dummy $REST_k$ represents all other regions apart from programme and reference areas, and will also be interacted with time dummies. The reference for all interacted time and community dummies is the interaction for the first year (2009), which is the base category. As the μ_j control for grid-level fixed effects, the analysis diminishes unobserved heterogeneity between grids. The main coefficients of interest are β_3-β_5, which measure the annual average growth of household income in programme, reference and other areas, given the corresponding change in neighbourhood characteristics as represented by coefficients $\beta_1 logS_j$, $\beta_{2N} N_{j,}$, and ρh_j.

In case of considerable gentrification we would expect the pace of purchasing power growth in programme areas to exceed that of reference areas. Since gentrification is thought to be predominantly an urban phenomenon, two robustness checks restrict the analysis (i.) to urban regions and (ii) to the 10 largest German cities (in 2022): Berlin, Hamburg, Munich, Cologne, Frankfurt/M., Stuttgart, Düsseldorf, Leipzig, Dortmund, and Hanover (Figure 2).

Figure 2 shows the distribution of rural and urban regions according to a current definition by the German Federal Institute for Research on Building, Urban Affairs and Spatial Development (BBSR 2017). In this typology, urban regions are distinguished from rural regions according to the total population and the population density of municipalities. In West Germany (including Berlin as a whole), the Social City programme focuses on regions, which are “urban” according to this definition. Among the 5-digit postcode zones comprising programme areas of urban regions, which had joined the Social City by 2008 in West Germany (including Berlin), 286 are located in urban regions and 101 in rural regions. In East Germany, only 22 are in urban regions and 41 in rural regions.

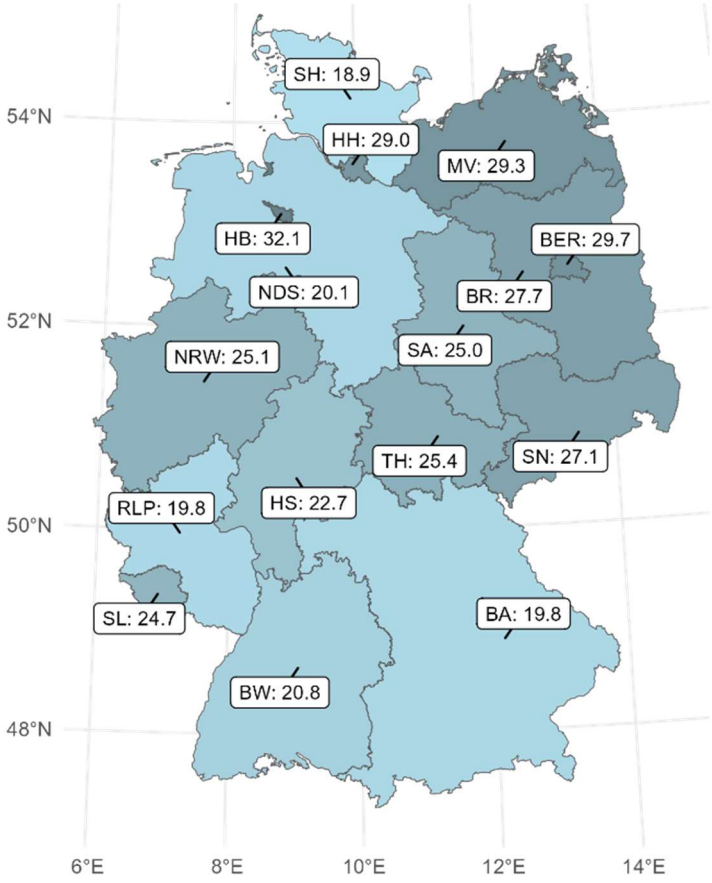
Figure 2
Urban and rural regions as defined for regional policy in Germany



Own illustration based on BBSR (2017)

Figure 3 displays total federal funding up to 2019 in programme areas that had joined the Social City by 2008 by federal states (in euro per population). It shows that funding among these programme areas, on which the analysis will focus, concentrated particularly on urban regions (Berlin (BER), Bremen (HB) and Hamburg HH), highly urbanised federal states experiencing structural change in West Germany (North Rhine-Westphalia (NRW), Saarland (SL)) and East Germany.

Figure 3
Federal funding (in euro per population) up to 2019 in pogramme areas that had joined the Social City by 2008



Own illustration. Author´s calculation based on Federal Ministry of the Interior (2019) and Federal Statistical Office and Statistical Offices of the Federal States (2025); BA: Bavaria, BER: Berlin, BR: Brandenburg, BW: Baden-Württemberg, HB: Bremen, HH: Hamburg, HS: Hesse, MV: Mecklenburg-Western Pomerania, NDS: Lower Saxony, NRW: North Rhine-Westphalia, RLP: Rhineland-Palatinate, SA: Saxony, SL: Saarland, SN: Saxony-Anhalt, TH: Thuringia

Table 2 highlights selected descriptive statistics for Social City programme areas, reference areas and for all other regions. The table provides information for 2021 and on change between 2016 and 2021. The data for 2021 characterise programme areas as urban neighbourhoods with a somewhat higher value in terms of supplier density S_j than reference areas and a considerably higher density than other areas.

Table 2
Socio-economic characteristics of "Social City" areas joining the programme before 2009, reference areas and other regions, mean values (2021, left panel) and change 20009-2019 (right panel), 1 km² grids

	2019			20009-2019		
	programme area	reference area	other regions	programme area	reference area	other regions
annual net median household purchasing power	46,583 €	52,165 €	44,098 €	+8.5%[1]	+ 9.9%[1]	+8.7%[1]
number of firms	121.5	95.4	18.2	+6.1	+3.6	+1.5
unemployment rate	6.0%	4.6%	3.8%	-0.7 pts[2]	-0.5 pts[2]	-0.7 pts[2]
population	2,029	1,568	263	-2.7%	-4.4%	+0.4%
foreigners	13.2%	10.8%	6.3%	+2.1 pts[2]	+2.9 pts[2]	+2.2 pts[2]
one-person households	40.6%	35.3%	30.3%	+0.9 pts[2]	+0.9 pts[2]	0.6 pts[2]

Author´s calculations using RWI GEO-GRID; [1]current prices, [2]pts = change in percentage points

This is as expected, since both programme and reference areas represent urban neighbourhoods, usually located in the more central parts of cities, and other areas comprise a wide range of regions including urban and rural areas. Similarly, population density is highest in programme areas, somewhat lower in reference areas and considerably lower in other regions. Among programme areas, which had joined the Social City by 2008, and in adjacent areas, the average population apparently declined between 2016 and 2021. Average income is lower in Social City areas than in adjacent non-programme areas and in other regions. It has grown at a somewhat slower pace in programme areas than in reference areas. The share of foreigners among the residential population is higher in Social City areas than elsewhere and the unemployment rate is also higher than in the reference areas and other regions.

In terms of increases in the household purchasing power, the descriptive statistics would not outline a considerable policy impact on programme areas. As explained, previous research for North Rhine-Westphalia, however, has suggested significant effects of the "Social City" programme on rental prices of local housing.

The second part of the analysis will explore income among Social City programme areas using household-level data from the SOEP as source. This part will proceed in two steps. The first will explore the degree to which basic household characteristics affect the overall likelihood of residence in programme areas in terms of logit model (5),

$$\max_{h} V_{h,t}^{i} = \delta_{h,t} + \sum_{k=1}^{8} \lambda X_{h,t}^{i} + \varepsilon_{h,t}^{i} \quad (5)$$

in which $V_{h,t}^{i}$ is observed as a binary variable representing choice h (1 = Social City programme area) for each year t = 2000, 2001, …., 2022. For any combination of k = 1, …, 8 household-specific parameters (including income) $X_{h,t}^{i}$ and mean indirect utilities $\delta_{h,t}$ the model predicts the probability (measured in log odds) that household i maximises its utility by choosing residence in a Social City area (as opposed to choosing any other kind of location) in year t. Household characteristics comprise income, household size, a set of demographic household attributes (age, qualification and occupation categories, migration background, and a dummy variable accounting for whether a person is interested in politics) (Table 3). Dummy variables are set to 1 in case the respective characteristic applies to at least one household member. Unobserved household-specific preferences are captured by $\varepsilon_{h,t}^{i}$.

The second step of the household-level analysis utilises the approach from equation (3) but provides an additional perspective regarding different income levels.

$$\begin{aligned} \log(y_{it}) = \alpha + \sum_{l=1}^{4} \beta_l X_{it}^{l} + \sum_{m=1}^{4} \rho_m h_{it}^{m} + {} & + SC_{it} + SC_{it}T_tYterc1_{99} \\ & + SC_{it}T_tYterc2_{99} + SC_{it}T_tYterc3_{99} + REST_{it}T_tYterc1_{99} \\ & + REST_{it}T_tYterc2_{99} + REST_{it}T_tYterc3_{99} + \varepsilon_{it} \end{aligned} \quad (6)$$

In equation (6) y_{it} is the outcome value in terms of household income in year t = 2011, 2012, …2019. During the Covid pandemic, urbanisation in Germany came to a temporary halt (cf. Figure 1). Income growth and household location decisions in this period differed from longer-term trends. This fluctuation may affect the study of the characteristics of specific parts of the population or regions to an even greater extent. We therefore restrict the study period to 2019 in this analysis, which aims to disentangle income growth among Social City areas by income

levels. X comprises a set of l = 1, …, 4 demographic household characteristics (household size, duration of stay at current residence; dummy variables adopting value 1 in case they apply to at least one household member: migrant background and age >60). h refers to a set of m = 1, …, 4 dummy variables that characterise human capital, again adopting value 1 in case they apply to at least one household member: upper secondary school certificate, occupied as skilled blue-collar worker, occupied as unskilled worker (skilled white-collar workers and all other occupations serving as base category), generally interested in politics. SC is a dummy variable representing residence within a Social City programme area in year t. As in equation (4), this regional fixed effect represents the "real market potential" attributable to firms from programme areas, which is assumed here to.affect household income. $REST$ is a dummy variable for residence outside of Social City areas, which represents the respective market potential. Variable T is a year fixed effect that is interacted with both SC and dummy variables $Yterc1_{99}$, $Yterc2_{99}$, and $Yterc3_{99}$. These refer to the first (bottom), second, and third tercile among all households sorted by household income in 1999. Further, variables T and $Yterc1-3_{99}$ are also interacted with $REST$. Since the data comprise mainly dummy variables, a cross-sectional model will be estimated.

The sample population includes all households taking part in the survey in 1999, i.e. one year before the introduction of the Social City programme. The policy outcomes will be explored over the period from 2011 to 2021 (with base year 2010) in order to consider a stable population with respect to residence in Social City programme areas. As explained the assignment to programme areas was introduced by SOEP wave 35 from 2018. Information on residence in Social City programme areas was made available for all years reaching back as far as the programme start in 2000. Yet, as the number of observations in the sample decreases

considerably (looking backward) from 2010 (almost 1,400) to 2009 (900), the analysis will focus on the second decade of programme implementation.

Due to the moderate volume of funding (amounting to around 600.000 euro per year located in districts with 10,000 inhabitants on average), it is not expected that this policy would imply an immediate local boost to such an extent that it might raise average local household income considerably. It is arguably out of the scope of this analysis, which disentangles further by income levels, to implement an identification strategy involving a difference-in-difference estimation. Further, since it is not possible to identify suitable reference areas among the household locations of SOEP participants, the control group comprises all households residing outside of Social City programme areas.

Nevertheless, the analysis in this step starts with an estimation of average income growth among households inside and outside of Social City programme areas between 1995 and 2005, examining the annual difference in comparison to average income in 2000, the first year of programme implementation. This first estimation controls for all variables included in the analysis according to equation (6), but only interacts time fixed effects with fixed effects for programme areas as a whole and other areas and does disentangle by income levels.

The main focus in this step is on examining longer-term income growth among households belonging to different income terciles, inside and outside of programme areas. Exogenous variability is utilised, since households are sorted into income terciles in 1999, prior to programme implementation.

Previous research found that the length of exposure to residence in programme areas may affect the longer-term evolvement of individual prosperity (Neumann and Yasar 2024). The role of the length of residence in programme areas will therefore be controlled for among various household-specific determinants.

The statistics in Table 3 show that household income among programme areas is below the German average. In this respect, the table confirms the income differentials between programme areas and other regions.

The mean age is somewhat lower in programme areas and there are more households with children, even though households with children are usually underrepresented in urban regions. A migrant background is a much more general characteristic in programme areas than among the German population altogether (and the share of migrant households is higher than the share of foreigners, cf. Table 2) and education attainment, here measured by the share of households, in which at least one person has achieved an upper secondary school certificate, is lower.

Table 3
Household characteristics (2022, in %, except as indicated)

	Germany	Social City programme areas
number of households	*41.858.504*	*2.618.291*
net monthly household income (median)[1]	2,700	2,120
household size (mean)	2.0	2.0
duration of current residence (years)	10.4	7.1
mean age	51.2	46.6
dummy variables = 1 if characteristic applies to at least one household member (in %)		
migrant background	26.3	42.2
child age < 14	15.2	16.9
age 60+	45.3	36.3
interested in politics	56.1	50.3
upper secondary school certificate	26.5	22.5
skilled blue-collar worker	4.5	4.2
unskilled worker	2.4	3.9

Author´s calculations. – Data source: SOEP - weighted using weights provided by the SOEP; [1]if value > 0, current prices, in euro

Table 4
Household characteristics in Social City programme areas (2000-2022, in %, except as indicated)

	immobile households	mobile households moving within….	into….	out of Social City
net monthly househ. inc. (median)[1]	1,660	1,500	1,500	1,600
household size (mean)	1.9	1.9	1,9	1.8
mean age	50.2	33.8	35.2	36.2
migrant background	27.9	37.1	30.9	27.9
child age < 14	15.6	22.0	21.9	19.8
age 60+	41.6	12.9	13.7	15.3
interested in politics	47.6	40.1	42.1	44.4
upper secondary school certificate	20.6	25.2	29.3	31.4
skilled blue-collar worker	12,4	13.6	13.1	13.2
unskilled worker	7.0	6.8	4.7	5.8
observations (max)	46,256,038	3,533,225	1,964,434	2,523,033

Author´s calculations. – Data source: SOEP - weighted using weights provided by the SOEP; [1]if value > 0, current prices, in euro

Table 4 reverts to mobility within, into and out of Social City areas during the period 2000-2019. As mobility only accounts for a certain share of the total population (around 8% of all households during 2000-2022), the number of observations will be too small to study the characteristics of mobile households for a specific year. The statistics therefore refer to mobility across the complete period.

Apparently, in terms of income levels mobile households do differ from immobile households. In the period from 2000 to 2022, the median income among households moving into Social City areas was 1,500, among households moving out 1,600, in households moving within 1,585 and in immobile households 1,660 euro. Over the study period, on average households moving into Social City areas thus had a lower income than those moving out and immobile households staying within programme areas. As the income of households moving out was only slightly below that of immobile households the descriptive findings would not suggest that upgrading of Social City areas so far has resulted in large-scale displacement of low-income households.

Quite as expected, the average age among mobile households is much lower than in immobile households and among households moving in the share of those with a migrant background is somewhat higher than in immobile households (30.9% compared to 27.9%). The share of households, in which at least one member holds an upper secondary school certificate, is considerably higher both in households moving into Social City areas (29.3%) and in households moving out (31.4%) than in immobile households (20.6%).

6. Analysis

6.1 Neighbourhood-level income growth

The analysis suggests a continuing agglomeration process, in which economic growth implies a growing local population, as shown by a positive coefficient of the total population regarding growth of average household purchasing power (Table 5). Yet, within urban regions and among the ten largest cities the coefficient remains positive but is lower in magnitude, i.e. further increases in population density still characterise prospering neighbourhoods but the connection

between population and income increases in urban regions, where the population and employment density is high, is not as immediate as in Germany as a whole (estimations 1-3 in Table 5).

Table 5
Average household purchasing power (1 km² grids) – fixed effects estimation

	all	urban regions	10 largest cities
	(1)	(2)	(3)
S_i - number of firms (log)	-0.030***	-0.006	-0.076**
	(0.007)	(0.025)	(0.031)
h_i - unemployment rate	-0.031***	-0.012***	-0.024***
	(0.002)	(0.002)	(0.002)
population density (log)	3.730***	0.854**	0.615***
	(0.040)	(0.143)	(0.202)
share of foreigners	-0.001**	-0.001	-0.001
	(0.001)	(0.001)	(0.002)
share one-person households	0.002**	-0.001**	0.001*
	(0.000)	(0.000)	(0.001)
*year*prog./ref./other area fe 2019-20 (reference: prog./ref./other areas*2009)*			
Social City*year fe, t = 2019	-0.019**	0.100***	0.060***
	(0.010)	(0.008)	(0.015)
reference area* year fe, t = 2019	-0.039***	0.092***	0.042***
	(0.007)	(0.008)	(0.012)
other areas*year fe, t = 2019	0.181***	0.115***	0.033**
	(0.007)	(0.007)	(0.013)
Social City*year fe, t = 2020	0.014	0.142***	0.102***
	(0.011)	(0.010)	(0.015)
reference area* year fe, t = 2020	-0.006	0.134***	0.082***
	(0.007)	(0.009)	(0.015)
other areas*year fe, t = 2020	0.231***	0.161***	0.079***
	(0.007)	(0.008)	(0.011)
Social City*year fe, t = 2021	0.045***	0.173***	0.110***
	(0.011)	(0.009)	(0.015)
reference area* year fe, t = 2021	0.043***	0.178***	0.115***
	(0.008)	(0.010)	(0.015)
other areas*year fe, t = 2021	0.269***	0.204***	0.118***
	(0.007)	(0.008)	(0.014)
*year*prog./ref./other area fe 2010-2018 (reference: prog./ref./other areas*2009)*			
year*programme area	yes	yes	yes
year*reference area	yes	yes	yes
year*other region	yes	yes	yes
programme area fe	yes	yes	yes
reference area fe	yes	yes	yes
constant	-8.893***	4.468***	6.352***
	(0.196)	(1.082)	(1.522)
observations	2,094,271	209,502	31,125
1 km² grids	175,924	16,180	2,396
R^2 within	0.14	0.18	0.27

Author´s calculations using RWI GEO-GRID; robust standard errors in parentheses; ***/**/* =significant at 0.01/0.05/0.1-level

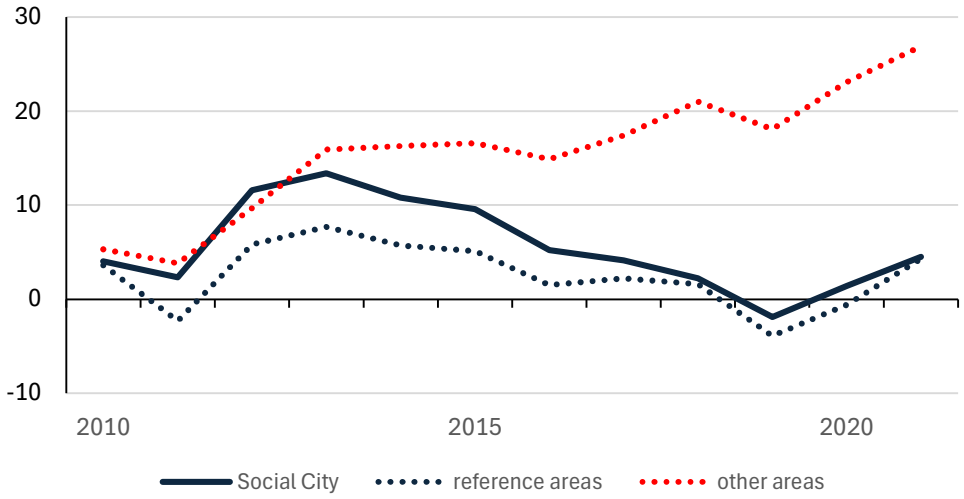
With respect to the supplier density S_j the analysis finds that an increase in the number of local competitors at the neighbourhood level might reduce the growth of income. At the regional level, an increase in the number of competitors is assumed to affect the prices for the products and services a firm offers, to reduce its total value added and indirectly the employees´ wages. At the neighbourhood level, an increase in the number of firms might affect local income

opportunities in a similar way, but in addition it might also indicate higher congestion and thereby render a neighbourhood less attractive, which would affect sorting of higher-income households. It is therefore plausible to find a negative coefficient regarding S_j,i.e. the supplier density. Concerning human capital h_j the analysis finds a negative coefficient for local unemployment rates. In equation (2) an increase in human capital is expected to raise productivity and thereby reduce the demand for labour. The local unemployment rate, which is accounted for here, already represents the consequences of a potential increase in human capital and productivity. With a view to unemployment rates, a negative coefficient is plausible.

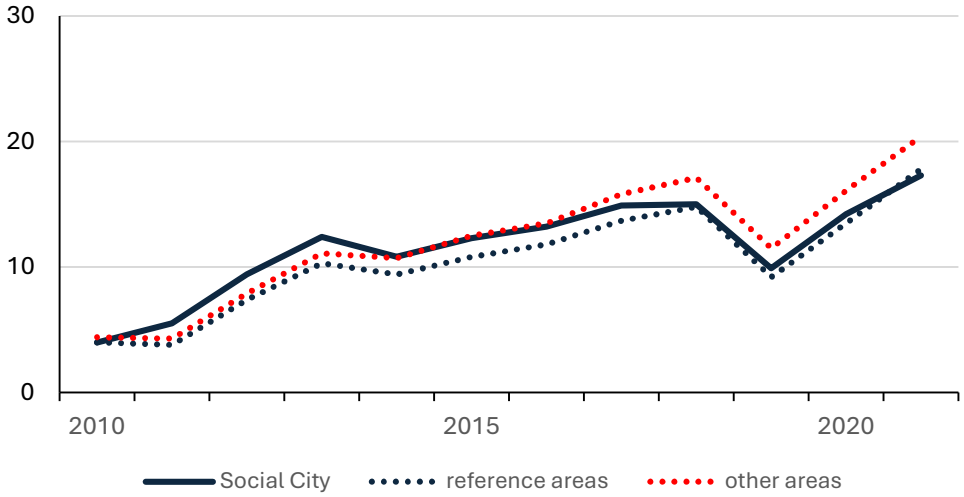
Figure 4 displays the annual change of average household income among Social City areas, reference areas and other areas, as measured by the coefficients of the interaction between area type and time fixed effects in the estimation of equation (4). The figure reveals that average household income–in Social City areas developed parallel to that in reference areas. Both types of urban areas, however, differed considerably from other areas in the pace of income change. If demographic neighbourhood characteristics N and human capital h are controlled for, between 2012 and 2019 the average income in urban regions inside and outside Social City programme areas experienced a decline. In other areas income increased and thereby followed a general increase in income over the past decade. Faster growth in other areas indicates an overall convergence process, in which less densely populated regions catch up with urban areas represented by programme and reference areas. Since the development of household income differed considerably between urban and rural regions, two robustness checks restrict the analysis to (i) urban regions and (ii) the ten largest German cities.

Figure 4
Annual change of average household purchasing power in Social City programme areas, reference areas and other areas compared to 2009 (in %, 1 km² grids), fixed effects estimation

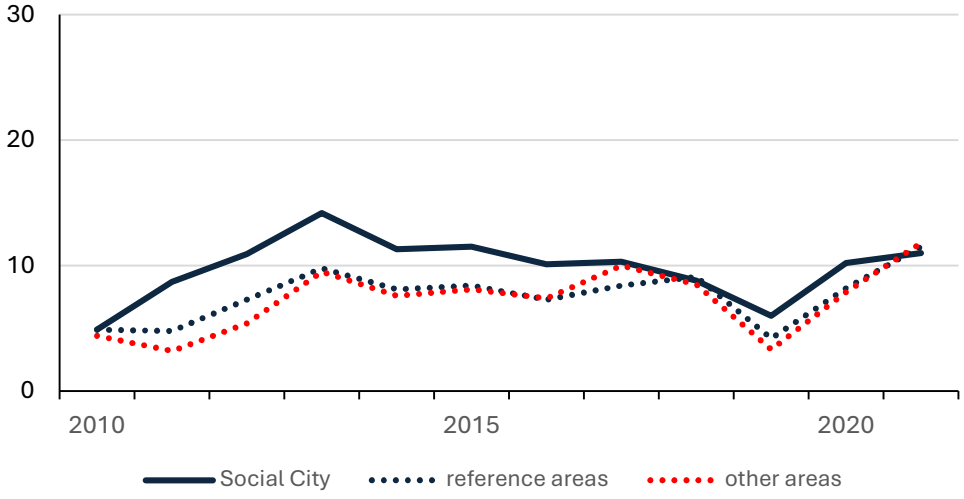
all regions[1]



urban regions[2]



10 largest cities[3]



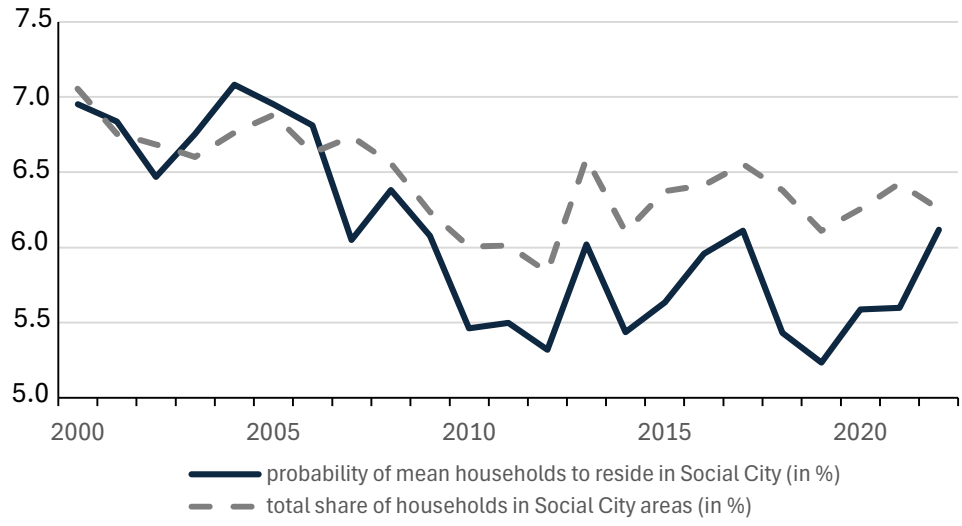
Author´s calculations using RWI GEO-GRID. Estimations of equation (4); [1-3]cf. Table 5, estimations 1-3

In urban regions the development of the impact of the market potential on household income in Social City areas paralleled that in reference and other areas. In the ten largest cities between 2010 and 2017 the programme areas accounted for an annual surplus in income growth of around 2% in comparison with reference areas. While this growth surplus may have been due to an influx of higher-income households, the magnitude would not suggest that a large-scale displacement of poor households has taken place. During the Covid pandemic the growth surplus of the Social City areas vanished.

6.3 Household sorting

While the constants from the logit estimations represent the log odds of households with mean characteristics to reside in a Social City area (as all variables are standardised with mean zero and standard deviation 1), Figure 5 displays the annual probability of these households to settle in a Social City area, as calculated using the log odds deriving from the logit estimations.

Figure 5
Probability of households with mean characteristics to reside in a Social City programme area (logit estimation) and total share of households in programme areas, 2000-2022 (in %)



Authors´ calculations. - Data source: SOEP; weighted using weights provided by the SOEP

Starting from a 7% probability, which just about matched the total share of households in programme areas in 2000, during most of the past two decades the probability of mean households to settle in a programme area remained below the share of all households in

programme areas, particularly since 2010. Since 2020, the gap between a mean household´s likelihood to reside in a programme area and the share of households in programme areas has diminished, once again.

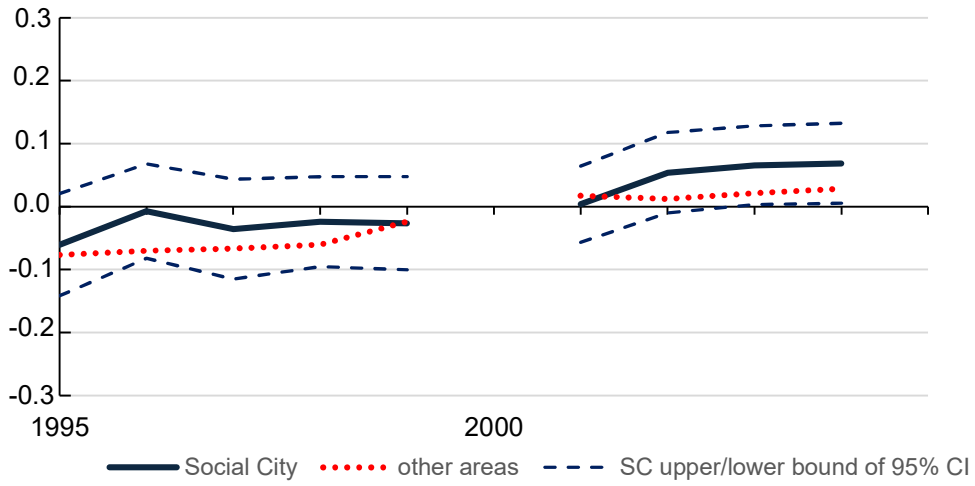
Yet, during the past decade the probability of mean households to settle in programme areas fluctuated between 5% and just above 6% and the renewed "peak" from 2022 remains within the range of this fluctuation. In case of an overall gentrification trend, a permanent reduction of this gap would be assumed, as it would become increasingly likely for middle-income households to seek residence in programme areas. While the analysis so far cannot rule out that several programme areas have experienced gentrification, as explained there is no evidence suggesting a widespread upgrading of average income. Further, since during the Covid pandemic between and 2020 and 2022, the long-term growth of large cities came to a (temporary) halt (see Figure 1), as explained it may be difficult to compare the location preferences of households from this period to the preferences determining their location choice before and after the pandemic.

6.4 Household-level income growth

The analysis of household income growth using the SOEP begins with begins with an estimation of average income growth among households inside and outside of Social City programme areas between 1995 and 2005. The estimation finds no coefficients significant at a 0.05 or higher level for the Social City before 2000, as displayed by upper and lower bounds of the 95% confidence interval. There was thus no statistically significant deviation from average income in 2000 in the period between 1995 and 1999. For 2002-2004 the coefficients are significant and reveal a 0.04 difference to the coefficients for the other areas, suggesting that income among households residing in Social City areas increased at a faster pace between 2000 and 2002 (+4%) than in other areas, where income stagnated. The estimation results displayed by Figure 6 would therefore suggest an income growth surplus in Social City areas for two

years after the beginning of programme implementation. It needs to be kept in mind, however, that the other regions in this analysis comprise the entire universe of urban areas. As local economic conditions may therefore differ from those in programme areas they can only be compared to a limited extent.

Figure 6
Income regression, annual difference of average household income in relation to the first year of Social City programme implementation (2000) in urban regions - OLS



Authors´ calculations. - Data source: SOEP, weighted using weights provided by the SOEP. Estimations of equation (6) using year fe*programme areas fe and year*other areas fe; SC upper/lower bound of 95% CI marks the upper and lower bounds of the 95% confidence interval for the coefficients of the interaction of Social City programme area fixed effects with upper income tercile and time fixed effects

Estimations of the determinants of income growth by income levels (equation 6), first of all, reveal a generally positive correlation of human capital with household income, as indicated by a positive coefficient assigned to an upper secondary school certificate, both among urban regions and in Germany as a whole (Table 6). Total income also increases in line with household size.

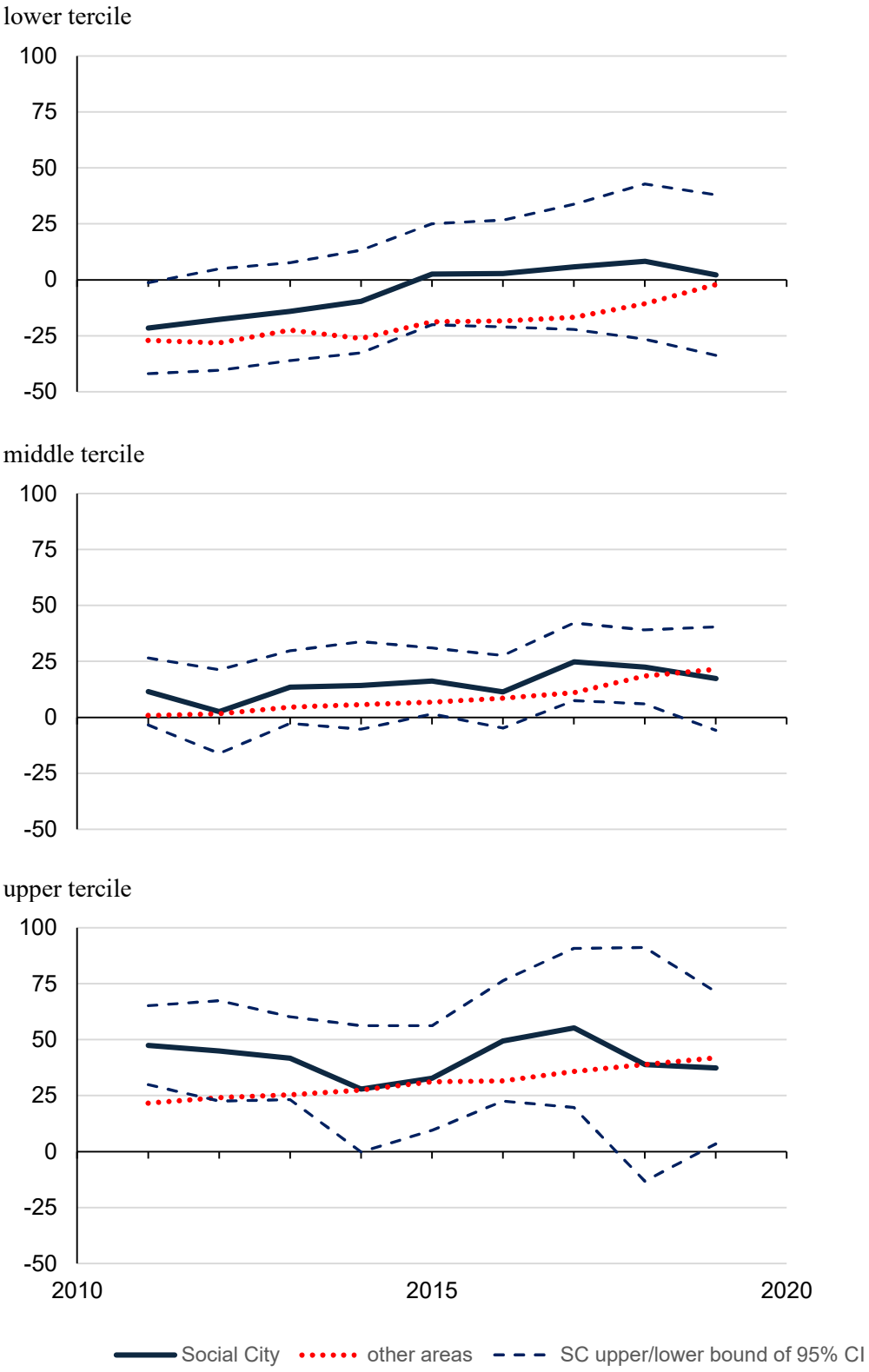
Among the interaction of fixed effects for income terciles, year and region the coefficients for the lower tercile in programme areas, are not significant above the 0.05-level in any year of the period between 2011 and 2019 (Figure 7). Regarding the middle and upper terciles, coefficients are significant for Social City areas during several years of the period 2011-2019 for the middle and for almost all years for the upper tercile. Table 6 displays the coefficients for 2017-2019. Figure 7 displays the results by income terciles.

Table 6
Household income (2010-2021), by income terciles from 1999 - OLS

	all regions	urban regions
Estimation	(1)	(2)
household size	0.247***	0.239***
	(0.005)	(0.006)
duration of residence	0.002*	0.001
	(0.001)	(0.001)
upper secondary school certificate	0.253***	0.275***
	(0.010)	(0.012)
unskilled worker	-0.041***	-0.027
	(0.016)	(0.019)
Social City*tercile 1*year = 2017	-0.034	0.058
	(0.113)	(0.143)
other areas*tercile 1*year = 2017	-0.125***	-0.167***
	(0.034)	(0.045)
Social City*tercile 2*year = 2017	0.254***	0.248***
	(0.073)	(0.088)
other areas*tercile 2*year = 2017	0.115***	0.111***
	(0.025)	(0.031)
Social City*tercile 3*year = 2017	0.467***	0.553***
	(0.135)	(0.181)
other areas*tercile 3*year = 2017	0.361***	0.358***
	(0.026)	(0.031)
Social City*tercile 1*year = 2018	0.099	0.082
	(0.156)	(0.177)
other areas*tercile 1*year = 2018	-0.037	-0.107***
	(0.037)	(0.047)
Social City*tercile 2*year = 2018	0.200***	0.225***
	(0.075)	(0.084)
other areas*tercile 2*year = 2018	0.175***	0.185***
	(0.024)	(0.030)
Social City*tercile 3*year = 2018	0.397*	0.390
	(0.235)	(0.266)
other areas*tercile 3*year = 2018	0.383***	0.389***
	(0.026)	(0.033)
Social City*tercile 1*year = 2019	-0.010	0.021
	(0.149)	(0.183)
other areas*tercile 1*year = 2019	0.006	-0.021
	(0.038)	(0.056)
Social City*tercile 2*year = 2019	0.177*	0.117
	(0.104)	(0.118)
other areas*tercile 2*year = 2019	0.213***	0.215***
	(0.027)	(0.032)
Social City*tercile 3*year = 2019	0.365**	0.374**
	(0.151)	(0.173)
other areas*tercile 3*year = 2019	0.436***	0.419***
	(0.027)	(0.035)
dummy variables representing demographic indicators X_i	Yes	Yes
further dummy variables representing human capital h_i	Yes	Yes
dummy variable representing Social City and other areas	Yes	Yes
Social City*terciles 1-3*years = 2011-2016	Yes	Yes
other regions*terciles 1-3*years = 2011-2016	Yes	Yes
	Yes	Yes
constant	6.995***	7.062***
	(0.026)	(0.032)
R^2	0.503	0.497
observations	20,098	12,548

Authors´ calculations. - Data source: SOEP, weighted using weights provided by the SOEP; robust standard errors in parentheses; ***/**/* =significant at 0.01/0.05/0.1-level

Figure 7
Income regression, annual growth of household income since base year 2010 (in %), by income terciles from 1999 in urban regions[1]



Authors´ calculations. - Data source: SOEP, weighted using weights provided by the SOEP. Estimations of equation (6); SC upper/lower bound of 95% CI marks the upper and lower bounds of the 95% confidence interval for the coefficients of the interaction of Social City programme area fixed effects with upper income tercile and time fixed effects

Since the development of average income in Social City areas diverged from that in other regions during the past decade, if all regions are taken into account (Figure 4), the coefficients from urban regions will be displayed. Here, the development of average household income was characterised by a parallel trend in programme areas and other areas.

Figure 7 outlines that growth of household income fluctuated to a somewhat higher degree among Social City areas during 2011-2019 than in all other regions. After all, programme areas account for only around 6% of the total population in Germany and a higher volatility of statistical data can be expected.

At large, if we control for household-specific demographic characteristics and human capital, households from the middle income tercile accounted for an income growth surplus over similar households from other urban areas until 2018 (+4, there is no significant coefficient for Social City areas in 2019). In the upper tercile however, income increased at an even faster pace outside of programme areas (+42%) than in Social City areas (+37%).

Households from the middle and upper income terciles obviously performed more successfully than households from the lower tercile, inside and outside of programme areas. In the lower tercile, households have experienced, by and large, zero growth whereas outside of the programme areas their income declined at the beginning of the past decade before growing slowly over the following years and catching up with the level of 2010 only in 2019.

While it is beyond the scope of the available data to pursue the performance of households moving into and out of programme areas in detail, the analysis suggests a continuing divergence of household incomeSince average income has developed at a similar pace in Social City and other areasit is not yet certain to what extent a faster current growth among the middle incomes in programme areas indicates an outcome of the local economic boost asserted by the Social City or rather just a higher volatility.

With a view to gentrification the results suggest that while midggle and higher income groups have at least kept up with overall income increases (and middle incomes even experienced a

surplus), households among the lower income tercile on average have not received a boost in earnings during the past decade. Any outcomes of local upgrading with respect to the income opportunities of poor households are likely to be restricted to a smaller group, which directly participated with local initiatives. So far it is difficult to evaluate to what extent these benefits may "trickle down" among local communities.

All in all, the experience in Germany so far does not imply a large-scale displacement of poor households from programme areas. Yet, given substantial increases in rents and housing prices particularly in large cities it may become increasingly difficult for poorer households to afford housing in urban programme areas unless social housing can be provided and community-oriented initiatives continue to address the requirements of households with a low income locally. Prevention of displacement of poor households in this policy appears to be due to the moderate funding, which refrains from large scale housing refurbishment, rather than to wider benefits for lower-income households.

7. Conclusions

The empirical study has explored whether urban regeneration policy in Germany has initiated a local revitalisation process that would affect the income opportunities of local residents. Since income growth in other areas, which include rural areas, exceeded that in programme and reference areas in the study period comprising the past two decades, different robustness checks focus on urban regions and the largest cities.

The German programme under review restrained from large-scale private housing refurbishment, construction of social housing or intervention in planning regulations. Rather, the "Social City" combines upgrading of public space with support of community-oriented initiatives, e.g. networks among local businesses, local council offices providing consultation on services offered by the employment offices, social workers supporting schools in deprived areas. Among various policy fields, the precise focus varies between programme areas. The

study explored the outcomes of the combined impact on the local market potential with a view to a potential increase in household income.

As far as neighbourhood-level and representative household-level microdata displays, there have been no considerable changes in the household and population structure due to mobility into and out of programme areas so far. As a whole, the results indicate that the Social City does not seem to have prevented economic divergence within programme areas, since households from the middle and upper income terciles have at least kept up with overall income increases, whereas poor households on average have received no boost at all.

For poor households a likelihood of displacement emerges most prominently in thriving local economies and in the largest cities. It is plausible that the amount of funding for community-oriented local policy varies between federal states according to their economic prosperity. As far as this policy is concerned it is fair to say that it hasn´t done much harm to the opportunities of poor households to remain at central urban locations, mainly because it has operated with a moderate dosage. Especially in large cities, extensive urban regeneration schemes might make it even more difficult for poor households to find affordable housing at central locations, unless this policy is flanked with the construction of social housing and continuing efforts to support local communities.

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