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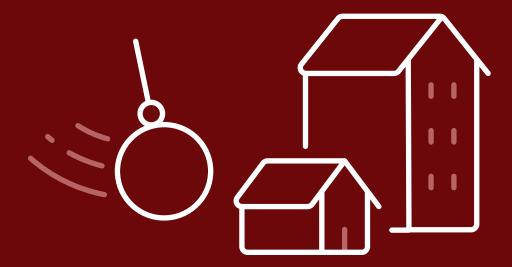
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FOCUS

Urban Challenges in Europe

Challenging the Contemporary European City Frank Gaffikin	3
The Costs of Containment: Or the Need to Plan for Urban Growth Paul Cheshire	10
Two Shades of Urban Shrinkage: Innovation and Economic Structure in Cities with a Declining Population Florian W. Bartholomae and Alina M. Schoenberg	15
Overtourism in European Cities: From Challenges to Coping Strategies Gert-Jan Hospers	20
SPECIAL	
The Role of Volunteers in German Refugee Crisis and Their Contribution to Local Government Expenditure Chang Woon Nam and Peter Steinhoff	25
SPOTLIGHT	
The Bitkom-ifo Digital Index: A New Indicator for the Economic Development of the Digital Economy in Germany Axel Pols, Stefan Sauer and Klaus Wohlrabe	31
TRENDS	
Statistics Update	33

Urban Challenges in Europe

Frank Gaffikin
Challenging the Contemporary European City

INTRODUCTION

European cities exist in a continent bounded by the Atlantic, Asia and Africa, that is strategically significant in terms both of geopolitics and the global economy (Benevolo 1993). Given that the essence of current European Union (EU) strategy is to achieve growth that is smart, green, and inclusive, cities are seen as crusaders in this endeavor, since they pioneer innovation, connectivity, compact settlement, energy efficiency and redress of social polarization. This article explores this agenda in a wider urban context, first by outlining key features in demography, economy and equality, from which challenges and policy responses are identified. It concludes with analysis of dilemmas impeding progress.

KEY FEATURES

Over the last half century, pronounced urban makeover has occurred worldwide. Old categories like metropolis and conurbation, that sought to depict the diverse ways that urban built environments in mature economies have dispersed beyond original municipal boundaries, have become less useful. Instead, conceptual confusion reflects more messy formation, such as edge city (Garreau 1991), referring to urban perimeter settlement, and peri-urban (Cavailhes et al. 2004), that refers to that urban fringe belt, comprising hybrid city-rural, and post-metropolis, which designates this new city space as an irregular combination of dispersal and agglomeration (Soja 2006). As conveyed by Knapp (2006, 61): "old dichotomies between center and periphery, urban and rural, settlements and open space, are fading ... Cities, suburbs, towns and rural areas grow increasingly together into a new poly-nuclear and fragmented urban patchwork".

Since the 1950s, Europe's urban footprint has extended into countryside hinterland, evident in conglomerate developments such as that along the Rhone Valley down to the Mediterranean Coast. In such formations, "development is patchy, scattered and strung out, with a tendency for discontinuity" (European Environment Agency 2006, 6). Prompting this pattern has been a blend of factors including: income growth, low commuting costs, cheap agricultural land relative to brownfield, and enduring inner-city problems (European Environment Agency 2006, 10-11): "historical trends since the mid-1950s, show that European cities have expanded on average by 78 percent, whereas the population has grown by only 33 percent. A major consequence of this trend is that European cities have become less compact".

Given this spatial spread, individual cities have to be observed in their regional setting. Thus, many urban regions in Europe manifest a polycentric form, whereby assorted cities and towns cluster each other, a proximity that affords potential for economic agglomeration and synergy. The most urbanized area is the 'pentagon', roughly bordered by London, Paris, Milan, Munich and Hamburg. Alongside this, there can be reference to the 'blue banana' area that wraps a vast swathe of condensed urbanism, stretching from Birmingham to Milan, and including London, Paris, Brussels, Amsterdam, Cologne, Frankfurt, Basel, Zurich and Turin. Other smaller socio-spatial configurations in Europe include: the Golden Banana, a coastal 'sun-belt' corridor from Valencia to Genoa; the Flemish Diamond, a linkage of 5.5-million inhabitants, drawing together Brussels, Ghent, Antwerp and Leuven; and the Randstad in the Netherlands, a mega 'corridor' extending from Amsterdam (finance, transport) to Utrecht (service sector), Hague (government) and Rotterdam (port) (Gaffikin and Morrissey 2011).

To a lesser extent, dispersed urban formations, marked by dotted or sprawling cities, are to be found in parts of northern Italy, southern Poland and in Belgium. Alongside this familiar pattern, principal cities – most obviously the largest capitals – hold paramount position, making their hinterland a monocentric urban region. Within this more globalized urbanism is increasing emergence of cities that



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accommodate greater ethnic diversity linked mainly to migration patterns over decades. They presage either more contested politics of identity, or cultivation of cosmopolis, where pluralist engagement can create inter-culturalism within mutual citizenship.

Whatever classification is used to capture the urban metamorphosis and its greater scale and reach, the key point is that the spatial and the social intersect, according an intrinsic spatiality to social life. Within these new spatial forms, three main types of European urbanity are evident:

- the dynamic city, mostly larger and West European, experiencing vibrant population increase, helped by inflow of both highly proficient and less qualified migrants, with inventive economy, appealing living conditions and global market reach:
- the city with a tradition of robust economy, mostly small to medium size, but now with a dwindling population and more strained prospect of enhancing its share of higher value-added activities; and
- the city caught in a spiral of economic and demographic decline, with related cumulative loss in property value, investment, jobs, tax base and services, most apparent in Central and Eastern Europe, but also in marginal areas of Western Europe (European Commission 2011).

In the period of 2004–2014, the EU28 population residing in predominantly urban regions increased by 6 percent, from 203.6 million to 215.7 million (European Union 2016). All told, the EU28 comprises over 800 towns and cities, containing over 50,000 residents, with nearly 700 of these urban areas being small to medium size and comprising between 50,000-250,000 people (European Commission 2016a). While 345 cities contain more than 100,000 residents, only 23 cities have more than 1 million inhabitants. London (12.5 million) and Paris (11.8 million) are the only two European megacities with over 10 milliom inhabitants, whereas globally, megacities have nearly tripled from 10 to 28 in the last quarter of century, with the largest, Tokyo, at 38 million more than three times the size of London or Paris (European Commission 2016b). Approximately eight percent of the EU28's people live in cities of over five million compared to the US figure of 25 percent. Expressed differently, only 16 percent of European urban residents dwell in large cities, compared to 30 percent in Asia, and 28 percent in North America (European Union 2016).

Of the EU28 population, almost three quarters (72.6 percent) live in urban areas, with 41.6 percent in cities and 31 percent in towns and suburbs. By 2050, it is estimated that the urban share will be just over 80 percent, a similar share to what exists presently in both Latin and North America (European Union

2016). Over half (56 percent) of the European urban population reside in small and medium-sized cities and towns of between 5,000 and 100,000 people. It is in large capital cities, particularly in Western Europe, where 'capital magnetism' generally makes for higher population growth, and share of working age people and foreign-born residents. In terms of age distribution, a high share of the EU28 ageing citizens live in relatively small cities and towns, with a penchant for coastal location, whereas younger people are more likely to reside in suburbs that offer access to large cities.

Global South cities – in Africa, Asia and Latin America – exhibit high urban density, varying from 4,000 to 8,000 inhabitants per km², whereas median density in North America is a mere 1,600 residents. Europe comes in between, with average city density of 3,000 residents per km² (European Commission 2016b). But this can vary considerably, with the Netherlands being high and the Nordic countries low. In 2014, EU urban areas made up 22.5 percent of total area, whereas cities alone made up a mere 3.9 percent (European Union 2016).

The key role of 'thick' urbanism in the EU's economy, in terms of critical mass and diversity of production capacity and 'anchor institutions' like universities, is evident from the fact that 67 percent of its GDP is created in metropolitan regions, that is those urban districts with over 250,000 inhabitants. Indeed, generally speaking, the larger cities perform better economically, as measured in conventional metrics. However, they can be also responsible for certain negative externalities: congestion, fumes, sprawl, deficiency in affordable housing, and such like. Moreover, the important complementary role of small and medium-size cities can be under appreciated not only for their accessibility, genial ambience, human scale, distinctive charm and tradition, but also for their innovation, as with Cambridge and Eindhoven.

Europe has seen growth in the economic influence of its cities. London and Paris metro regions generate nearly one third of their national GDP, while their population share is closer to one fifth (European Union 2016). More generally: "between 2000 and 2013, GDP growth in cities was 50 percent higher than in the rest of the EU and employment in cities grew by 7 percent while it declined slightly in the remainder of the EU" (European Commission 2016b, 11). Such success has been linked to educational advancement – for example, in 2015, European cities had 48 percent of their 30 to 34-year old population obtaining tertiary education (European Commission 2016b). However, this job success contains a paradox. In 2014, the unemployment rate in the EU28 stood at 10.9 percent for those in cities, compared to 9.8 percent for those in towns, suburbs or rural areas, a disparity largely explained by the role of commuters (European Union 2016).

But whatever the significance of Europe-wide economic frameworks, prosperity of particular cities is still most tied to the performance of, and redistribution within, their national economies: "seventy-four percent of the differences in growth (GDP) between individual cities in Europe is accounted for by differences between the growth rates of different countries, and just twenty-six percent by the differences between growth rates of cities in the same country" (European Commission 2011, 19). In recent times, the biggest rises in GDP per capita have been in metropolitan regions of Germany's Heilbronn and Ingolstadt; Ireland's Cork; Luxembourg; Sweden's Stockholm, Goteborg and Uppsala; and UK's Aberdeen, Derby and Reading. With regard to economic innovation, places like Eindhoven, Dusseldorf and Grenoble, with their high-tech enterprises clustered in science parks and the like, have high propensity to patent.

But, the uneven distribution of economic improvement is evident in stark regional disparity. For instance in the UK, in 2013, Inner London West, with the highest level of GDP per inhabitant, enjoyed average per person wealth at 5.7 times the national average. By contrast, among the lowest GDP per inhabitant were the once industrial regions of the Welsh Central Valleys and Gwent Valleys, the Wirral, Sefton, Greater Manchester North and Blackpool (European Union 2016). Some of this is reflected in wider EU28 labour market patterns. In the eastern part, higher employment and earning rates and lower poverty levels are typical of cities, whereas in some western areas, city dwellers often deal with lower employment and income rates and higher deprivation levels than those residing in towns, suburbs and rural areas.

In 2014, almost a quarter (24.4 percent) of the EU28 population - 122 million people - were deemed at risk of poverty or social exclusion. Relatively, this translated as 24.3 percent in cities, 22.3 percent in towns and suburbs, and 27.1 percent in rural areas. The highest share of low work intensity (under 20 percent of potential) households are those in cities (12.5 percent), with 10.1 percent in towns and suburbs and 10.3 percent in rural areas. With regard to those at risk of severe material deprivation, while this was minimal in Nordic member states, Luxembourg and the Netherlands, it was evident in the east and south, with for example just over a quarter of the population being impacted in Bulgarian cities, and just over one fifth in Romanian and Greek cities. In general terms (European Commission 2011, 14): "the distribution of income and wealth in the EU has, particularly in recent years, become increasingly concentrated in the hands of global business and the very rich and these developments are particularly evident in urban areas ... While (western) cities were often characterized by higher standards of living - as measured by GDP per inhabitant -

they also recorded a high degree of income inequality".

Spatial reflection of this inequality is evident most starkly in segmented residential patterns that are multi-factor outcomes of income differential, housing policy, and welfare provision (Tammaru et al. 2016, 6): "retrenchment of the welfare state, the promotion of home ownership together with social and economic change (professionalization) and spatial change (gentrification, suburbanization) thus potentially contribute to increasing levels of socio-economic segregation".¹

Class-based residential segregation could become increasingly complicated by separatism based on ethnicity. In 2015, 52.8 million people living in the EU28, nearly 10 percent of total population, were born in a foreign country. Among EU28 cities, London has the highest number of foreign-born citizens, nearly 3 million (European Union 2016, 225): "during the period 2009-14, two patterns were apparent regarding inflows: a relatively high number of migrants arrived in several of the metropolitan regions covering EU capital cities, while there were high numbers of migrant inflows across a range of large German metropolitan regions". Diversity is a challenge and opportunity. Interestingly, reservation about the contribution of migrants in EU28 cities does not rise as the migrant share increases. Indeed, in the most cosmopolitan European cities like London and Amsterdam, cultural diversity is mostly viewed positively by residents.

With regard to urban housing pattern and composition, while some 70.1 percent of the EU28 population are in owner-occupation, home ownership is less customary in capital cities. In 2014, highest levels of severe housing deprivation were in rural areas (6.6 percent), followed by cities (5.0 percent) and towns and suburbs (3.9 percent). In that year, 39.7 percent lived in an apartment, 33.7 percent in a detached house, and 25.8 percent in a semi-detached or terraced dwelling. The smallest urban residences were in Baltic member states and Romania, while the largest were in Cyprus, Belgium, Luxembourg and Portugal. Household composition varies considerably across cities. For example, in Berlin, nearly half (49 percent) of households were single person (European Union 2016).

With regard to crime and anti-social behavior, the share of the EU28 population living in neighborhoods with problems connected with crime, vandalism and violence was notably higher in cities (19.9 percent) than it was for towns and suburbs (11.8 percent) and rural areas (7.3 percent) (European Union 2016). Such data reflects again the persistent urban paradox. Cities can offer opportunities of employment and lifestyle choice. But they can be places with greater than national average of unemployment, poverty, conges-

¹ This study of twelve EU capitals concluded that, between 2001-2011, socio-economic segregation increased in most of them.

tion, homelessness, and crime. Moreover, how urban dwellers perceive their satisfaction and quality of life can complicate this paradox further. For instance, while it is unsurprising that high earners in the EU28 register a higher level of life satisfaction than do lowest earners, a high share of capital cities have their residents reporting relatively low satisfaction levels on issues such as health, education, and trust. Also, wider geographical differentials apply, seeming to contradict the positive relationship between high income and life satisfaction. A lower share of western EU city residents conveyed satisfaction with life compared to relatively high levels of satisfaction expressed by those living in cities in eastern EU28 member states.²

URBAN CHALLENGES AND POLICY

Importantly within the EU, there has been no specific legal basis for urban policies, and this lack of authoritative 'competence' has helped ensure provision deficit. But, it has not hindered a plethora of urban schemes and policies, going back to the Urban Pilot Programs in the late 1980s through to URBAN projects in the 1990s, geared to sustainable integrated development, followed by initiatives like the URBACT program (2002-2013) to promote city networking and exchange. Recent intervention has been aligned with Europe 2020 and the EU Sustainable Development Strategy, that extol cities as concentrations of human, social, cultural and economic capital, while also recognizing them as places whose very density manifests most clearly current contests and challenges: environmental degradation; ageing populations; urban shrinkage; intensive suburbanization that compromises benefits of urban compression; fragile association between economic growth, employment, and general welfare; increasing income disparity and linked social exclusion; culture wars; decreasing supply of suitably located and priced housing; insecurity related to crime/anti-social behavior; and political disenchantment, with its potential for corroding active citizenship.

But for all the plans and policies over the last quarter of century, progress has been slow. Resource, delivery and evaluation instruments have been weak. Mostly, incremental policy development has come from informal ministerial meetings. In 1997, the European Commission adopted a Communication: 'Towards an Urban Agenda in the European Union (COM 1997, 197, final)'. In 2004, Urban Acquis, establishing key principles of good urban development, was followed in 2005 by the Bristol Accord on sustainability, which prioritized place-making through leadership, civic engagement, and interdisciplinary teamwork. Then came the Leipzig charter, emphasiz-

ing how making cities more sustainable and livable implied particular attentiveness to dispossessed neighborhoods. This was followed by a European Parliament report (2008/2130, INI), on developing a distinctive urban dimension to cohesion strategy. Then, there was the 2010 Toledo declaration for a common framework that would achieve greater coordination of EU initiatives to promote a comprehensive linkage between knowledge-based urban economies and more sustainable and socially inclusive urban development. It highlighted citizen participation in integrated urban regeneration, combining a territorial perspective on economic growth, compact city planning, eco efficiency and social cohesion, using instruments such as URBAN NET to enhance transnational urban research and knowledge exchange.

By this stage, the outline of EU urban strategy was clear and familiar, involving cities' pivotal role in: tackling climate change; deploying a greater share of renewable energy sources; advancing less pollutant transport, including improved accessibility through mixed use development; recycling land, while regulating its supply and speculative development; limiting urban sprawl; reversing social polarization and related spatial segregation; promoting inter-culturalism and public space; protecting heritage while integrating immigrants; improving service access and affordability; providing socially balanced housing; championing quality design; modernizing soft and hard infrastructure; diversifying local production systems based on low carbon, innovation and creativity; upgrading labor skills and education - this and more, undertaken within a holistic and long-term framework by new cross sector partnership platforms, that extract more outcome through synergy, and are informed by agile, multilevel and coordinated governance.

But this ambitious agenda was emerging most comprehensively at the very time a world financial crisis was restricting fiscal scope for proactive expansive government. A 2011 European Commission report noted (European Commission 2011, 18): "with increasing immigration and mobility, pressures on national welfare systems and more vulnerable labor markets, European cities face increasing social and economic polarization, both within and between them". Looking to the future European city, the report advocated strong metropolitan regions framed within polycentric development as the optimum model for: a resilient, balanced and inclusive economy; social, cultural, generational and ethnic diversity; territorial cohesion; and governance appropriate to the scope and scale of challenges addressed. To promote inter-urban dialogue further, the European Commission held a stakeholder forum in 2014, called: CITIES - cities of tomorrow, investing in Europe. Three years later, a European Commission Communication produced an urban agenda to amplify the urban dimension to all EU28 intervention (COM 2014, 490, final),

These findings come largely from the June 2015 Perception Survey on Quality of Life in 79 European cities; see Eurostat (online data code: urb_percep).

which, following a consultation period, was adopted in June 2016, at an informal meeting of the Council of European Affairs ministers of the EU.³

Much of this urban agenda speaks the same language as the EU's overall 'territorial' strategy that includes connectivity for people and enterprises and development corridors spanning cross-border and transnational functional regions. As serious intent, this can be traced to the European Spatial Development Perspective (ESDP) in 1999, and its policy kin over the last two decades, culminating in the Territorial Agenda of the European Union 2020 (TA2020). Yet at some simple levels, connectivity remains very differentiated. For instance, the digital divide is real, with under two thirds (62 percent) of the EU28 rural population exercising daily online activity in 2016, compared to 72 percent for urban dwellers, a share that reached three quarters in 2018.⁴

LEARNING LESSONS

It used to be claimed that European and American urbanism were very different, with the latter being decidedly more marked by socio-spatial segregation, ethnic diversity and tension, minimalist welfarism and sprawl that helped to hollow out the central city. The extent to which European urban development has become more market-driven and privatized can be argued. Some see a significant turn from a redistributive focus on socially allocated capital to an investment focus on more deregulated private wealth creation, making the policy landscape more akin to that of American urbanism. However, analysis of EU policy does not confirm the demise of social Europe or fundamental retreat from the Keynesian-welfarist model, for all the hegemony attributed to neoliberalism.

At the same time, the urban regeneration challenge in mature economies worldwide is premised on persistent marginalization of traditional manufacturing, a related shift to knowledge-based industrialism, higher dependence on services and potential for a disaffected urban underclass discarded as surplus to the needs of modern production. Given this structural change, urban problems are considered part of a pervasive urban predicament rather than largely exclusive to the inner city. Indeed, these changes are global in origin and reach, and caught within what some see as an increasingly discordant geo-politics of identity, sovereignty and governance (Norris and Inglehart 2019). Europe has not been immune to this identity politics, whereby the fault line in an increasingly populist discourse is between those who see themselves in globalist terms, as social liberals tolerant of diversity, and those who see themselves in

terms of social conservatism, nativism, and narrow nationalism. In turn, this is linked to global economic change. For instance, the massively increased numbers in the capitalist labor market, from the entrance by Russia, Eastern Europe, and China, has contributed to a surplus labor supply that has helped reduce the price of labor. Of course, other complicating factors lie behind the 'wealth swing' from labor to capital, including deregulation, lower corporation taxation, and emasculation of organized labor.

Given this disruption in polity and economy, European urbanism faces formidable challenge. At the very least, response has to start with learning lessons from past practice. Europe has suffered from an overload of urban plans, policies and related funding streams for at least three decades. Much of the policy text is repetitive generalization that confirms the old saying that when all is said and done, there is a lot more said than done. Delivery has not lived up to the grand ambition of policy statement, and this shortfall is related to the following lessons:

- The process tends to be based on insubstantial evaluation. A series of pilots, programs and policies track one another without robustly testing outcomes of the previous initiative, or indeed schemes from elsewhere, and resourcing effective interventions to the scale and duration the problem demands. Such confusing array of plans and policies invites a law of diminishing returns. In this circuitous policymaking, central concepts vary over time, giving delusionary impression of more insightful understanding: participation becomes partnership; poverty becomes social exclusion; multiple deprivation becomes multidimensionality; coordination becomes connectedness; piloting becomes prototyping, etc. Moreover, new dimensions are simply added to others in something of a diagnostic dump. Integration is complemented with inclusion and later with cohesion, and subsequently with sustainability and resilience. It seems that since we cannot change the problems, we settle for changing the terms of engagement. With turnover of policymakers, institutional amnesia grips, and thereby wheels are unintentionally re-invented, because no basis exists for building on best precedent.
- 2. The spatial scale and model of intervention keeps changing. No clear and consistent decision has been reached about appropriate government level or territorial focus. Is the 'new localism' about genuine subsidiarity designed to enhance local empowerment, or a means of national governments depoliticizing their responsibility for private affluence and public austerity? Since the magnitude of something like climate change demands cross national action, how is this translated in forms of shared sovereignty for resourcing and monitoring progress, and penalizing missed

³ For further information, see http://urbanagenda.nl/pactofamster-dam; and http://cor.europa.eu/euurbanagenda/.

https://ec.europa.eu/eurostat/statistics.../Statistics_on_rural_areas_in_the_EU.

- targets? Why is the nesting of more locally-based community planning within wider spatial planning not tied within stricter legal obligation?
- 3. Insufficient distinction is drawn between development *in* a place, and development *of* a place. The former tends to concentrate on physical-led development, while the latter on people-centered development, such as upgrading residents' skills and capacities. Both are essential. But, the latter is the more complicated and long-term. Erecting a building is relatively easy. But, building community is a greater challenge when seen as part of sustainable place-making. Fostering civic values such as sociability, solidarity, trust, empathy and resilience is critical to strong urban neighborhoods.
- 4. Linkage between urban compensatory programs for deprived areas and wider city regeneration is often underdeveloped. Many European cities have experienced anti-poverty urban schemes since the 1970s, leading to programs for integrated development in the 1980s. Often, these focused on city centers and waterfronts, in imitation of American public-private partnerships designed mostly to facilitate renewed private development. But, instead of treating the city in a holistic way, the general propensity has been to parcel the city into discrete development zones; parse the multiple publics that are thus stratified: corporate personnel, commuters, the deprived, the professional class, the tourist, etc.; and portion the outlay in ways that can privilege the already advantaged. In the context of the urban arena, already splintered by socio-spatial polarization caused by social inequality, this 3P tendency to parcel, parse, and portion needs to be swapped for a 3S approach of stitch, scale, and scope:⁵ stitching the city together as one coherent unit for comprehensive planning; scaling investment of time and money commensurate with the size of the challenge, while broadening geographies of 'local community' to include pluralist populations; and scoping development plans to cover both social needs and assets, while magnetizing cross-sectoral funding behind common purpose for the city.
- 5. Negligible attention has been given to quality. Targeting has its merits. But, it tends to concentrate on the readily calculable, thereby trimming appraisal to tick-box inspection. In such quantifiable emphasis, quality can be relegated. Rather than benefitting from a coherent quality design framework for the whole urban area, many European cities manifest quality design in the central core, but less so in surrounding neighborhoods.
- 6. Despite useful data from Eurostat and multiple reports and agencies, European urban strategy

- merits more meticulous analysis. Challenges for contemporary urbanism stem from considerable and long-standing structural and cultural adjustment, including: deindustrialization; urban-rural shifts; growing migration and diversity; accentuated social inequality and segregation; and reconstitution of 'community' in the circumstance of new family patterns, demographic re-composition, social media, secularization and such like. Development agendas that acknowledge these complexities are not facilitated by old-style rational planning, based on the 'predict and provide' model.
- 7. Deployment of international urban consultants can bring comparative perspective and best practice. Conversely, such firms can simply 'clone' routine urban regeneration strategies, often influenced by neo-liberal assumption, while transplanting them with scant regard to particularity of place. Good city planning demands singular customization, not bland uniformity.
- In Europe, numerous agencies and networks have proliferated, with special responsibilities for urban, regional, territorial and sustainable development: CIVITAS, Covenant of Mayors, Euro Cities, Energy Cities, METREX, Local & Regional Europe, etc. Yet within this labyrinth, bewilderment prevails about what hierarchy of authority is accorded various plans, how exactly they nest with each other, and how they fit within Europe's overall spatial planning. European urban strategy could benefit from less platitude about vision and more precision about delivery: when is it to happen, what agencies are responsible, what funding source, outcome targets, beneficiaries, penalty for non-delivery and such like? Fine rhetoric needs pinned down to plausible action plans.
- A persistent quandary is captured in the Einstein maxim: not everything that counts can be counted, and not everything that can be counted counts. Measuring success of EU objectives of smart, green and inclusive cities will involve different calculus for each of these three dimensions. Smart cities are those that deploy digital technologies, pool resources and involve multi-stakeholders to find urban solutions. But how can that mix of social and economic innovation be captured in conventional concepts like GDP? New agendas around quality of life and happiness necessarily demand new metrics, but how are we to arbitrate the relative significance of all these different measurements when it is like adding apples and oranges?
- 10. Finally, fixing a problem may often involve redefining it as opportunity. For instance, some suggest that for those many areas undergoing urban shrinkage, the best strategy may be to accept it, and exploit its benefits for improved quality of living (Hospers 2014).

⁵ These three concepts are taken from the work of the Alternative Forum for Belfast.

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Paul Cheshire

The Costs of Containment: Or the Need to Plan for Urban Growth



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Urban containment boundaries and greenbelts may appear to contribute to a more compact development pattern. However, they may backfire by causing fragmented, leapfrog development (OECD 2018).

INTRODUCTION

Lima in Peru and London in the UK have a surprising amount in common. Superficially very different, their problems and the policies they need to adopt, are surprisingly similar. Both are major cities and their country's capitals, cities of rich cultural cross-pollination. In functional terms they are a similar size. The OECD gives the population of London's Metropolitan region as about 12 million; Lima's is less well documented but the Metropolitan Region, as defined for administrative purposes, has a population of some 11 million. Both cities are extreme cases but represent architypes of mega cities in prosperous and in poor countries. For very different reasons both cities are greatly handicapped by the unintended consequences of containment: in London's case, self-inflicted containment, but in Lima's case, unplanned and accidental.

Great cities are vitally important. A clear lesson from research in urban economics over the past 20 years is how important agglomeration economies are. Agglomeration economies are a form of externality: producers become more productive from their ability to interact with complementary producers and draw on specialized labor markets. But they come in two forms: agglomeration economies in production and agglomeration economies in consumption (Glaeser et al. 2001). Research has taught us quite a lot about production agglomeration economies: their importance varies by sector - not so important in manufacturing which may go some way to explain the absence of mega-cities in Germany; but very important for many traded services and also (less well known) public administration (Graham 2009). Their estimated quantitative significance varies between studies and appears to vary by national context - more important in developing countries like Peru than in advanced economies (Duranton 2016).

A recent and very rigorous study for Spain, tracking how wages and productivity varied as a given individual moved from a smaller to a larger city, con-

cluded that, all else equal, individual productivity increased by about 5 percent as city size doubled; that the increase in productivity took some seven years to build up following migration to a larger city but a substantial proportion of an individual's productivity gain was retained if the they then moved back to a smaller city. Larger cities not only apparently generate productivity gains, they also export them to smaller cities (De la Roca and Puga 2017).

Less is known about agglomeration economies in consumption. Competition between providers of services and greater choice are most frequently cited as examples but other forms are important. Any service that requires a large market to be viable - especially a live audience - benefits from agglomeration economies. Live sports, music or theatre are examples of activities needing a large live audience but specialized medical or legal or financial services or museums also require a large market and the consumer needs personal access. They cannot be bought on the internet. Take the example of football and opera: only in a really large city can one enjoy top class experiences of either. Living in a city as large as London, it is possible to enjoy world class football in at least three venues, accessible from the center within 30 minutes; it would take even less time to get to world class opera or theater. Milan, Munich or Madrid are big enough to offer world class examples of both but with less choice.

There are many types of agglomeration economies in consumption and we really know very little about them still but it is reasonable to argue that cities are the most welfare enhancing human innovation in history: they empowered the division of labor, the invention of money, trade and technical inventions like the wheel – let alone government, the arts or culture. And that the bigger a city is, other things equal, the more productive are its producers and workers and the greater the welfare of its citizens.

Not all else is usually equal, however, especially because certain types of cost systematically increase with city size. The most obvious of these is the price of space: as cities increase in size so their rising agglomeration economies generate more competition from both producers and workers to access them; and from people to enjoy them. As a result, the price of space rises as cities get bigger and also become more productive. This is not just because more producers and people are competing for space but the rising productivity increases incomes and there is ample evidence that there is strong income elasticity of demand for space in housing (Cheshire and Sheppard 1998; Muellbauer 2018). As people get richer they try to consume better housing and a key characteristic of better housing is that it is roomier. Other costs that increase with city-size are most obviously congestion but also pollution and possibly crime. As Glaeser (2011) points out, if you are close

enough to other people to learn from them, you are close enough to mug them: in other words, there may be agglomeration economies in crime.

COST OF CONTAINMENT BY DESIGN

Since there are significant and tangible benefits - both economic and directly of welfare - from facilitating urban expansion, the obvious role for policy would seem to be to offset for the costs of city size. Yet in many OECD countries, and especially Britain, policy has actively worked to restrict urban expansion for two generations: in Britain since the first Green Belt - the Metropolitan Green Belt around London - was imposed in 1955. Since then Green Belts have been designated for all other major English cities and - like Oxford, Cambridge or York - several smaller cities. It is for this reason the focus here is on British cities, and particularly on London: English cities provide the first examples of rigid urban containment anywhere in the world and, as is argued below, the effects of containment build up over time and become ever more salient as decades pass.

Green Belts in Britain are essentially containment boundaries. They are only rhetorically 'green' since the land within them is privately owned, so the only access is via legal rights of way, and the most important use of land within them is intensive farming. Their only purpose, as confirmed in the National Planning Policy Framework of 2012 and 2019, is to prevent development. They do not protect land from development for amenity or environmental reasons, it is simply to prevent building and 'settlements from merging'. Indeed, intensive agriculture is one of the most environmentally damaging land uses there is. Similar policies have been adopted over the past 50 years in parts of the United States (most notably Portland, Oregon), in Austria (Vienna), Canada (Toronto and Vancouver), New Zealand (Auckland), and South Korea.

Germany is an interesting case because many cities there have Green Belts. However, as Siedentop et al. (2016) point out, although designed for containment, they were 'loosely' drawn and included substantial areas for urban expansion. To date they do not appear to have produced leapfrogging across them nor measurably raised land prices. Moreover, with local autonomy rather than a unified national system of planning, in some cities like Cologne, Green Belt policies include improving access and the recreational quality of the land.

Containment policies such as Green Belts may be formulated in terms of physical development and densification but they ultimately have economic consequences. When first imposed in Britain, not only was some land left within them at urban fringes for future housing needs, but there was a program of building New Towns designed to house poorer people from the old central city slums at lower densities and in a greener environment.

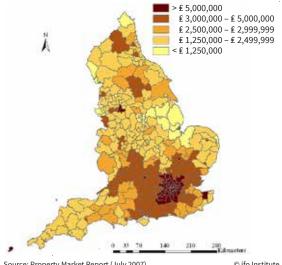
Because the demand for land grows both as cities get bigger but - because of the strong income elasticity of demand for space - more importantly as people get richer, if the supply of land is constrained, so, over time, its price is bid up. Since Green Belts were imposed in Britain in 1955 the price of land for housing has increased in real terms by a factor of 15. In the 60 years previous to 1955, there had been no upward trend. Transport investments, first in suburban railways and the London Underground and then, from the 1920s, in new roads, designed for car traffic, meant there was a more or less perfectly elastic supply of land for housing at the urban fringe.

The last New Town, Milton Keynes, was designated in 1967 however, and land inside the Green Belt boundaries was rapidly exhausted - in part because no allowance was made for the effect of rising incomes on the demand for land and space in houses. The increase in land and house prices was slow initially because new building (the element of housing supply restricted by constraints on land supply) was able to be still quite rapid. New building, however, is only ever quite a small proportion of total housing supply. In England, partly because of the impact of Green Belts on house building, the mean rate of new construction has shrunk substantially so that, at about 130,000 a year over the past 10 years, it has been only some 0.5 percent of the total housing stock.

One of the economic effects is illustrated in Figure 1. This shows housing land prices mapped by local authority areas in 2007 (data ceased to be available on a comparable format from 2008).

By 2007 the price of land was above £3 million per ha in most areas covered by Green Belts: indeed, most cities' Green Belts could be identified

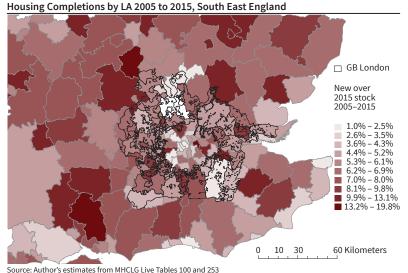
Figure 1 Residential Land Price per Hectare (England), 2007



Source: Property Market Report (July 2007).

@ ifo Institute

Figure 2



(https://www.gov.uk/government/statistical-data-sets/live-tables-on-dwelling-stock-including-vacants and https://www.gov.uk/government/statistical-data-sets/live-tables-on-house-building).

by the elevated land price. The Metropolitan Green Belt around London extends from the North Sea to the edge of Aylesbury 130 kms to the west. It also extends into the administrative area of London, the Greater London Authority (GLA): 23 percent of the GLA area is subject to Green Belt designation. This means that in a Borough of north London such as Barnet, if it were possible to build on a hectare of farmland, its price would increase from £20,000 to some £15 million to £18 million. Another way of thinking about this price distortion is that it is a measure of the costs of foregone agglomeration economies. People would pay a very large premium to be able to live close to the productive and wellpaid jobs of London.

The policy has been highly 'successful' as a mechanism for preventing house building as is revealed in Figure 2: London's Green Belt, outlined with a darker line, is also identifiable by the lack of house building.

This success has a double price, however. Internationally comparable data on house prices is notoriously difficult to find. One of the most widely quoted sources, albeit for 120m² flats in prime inner-city locations, is the Global Property Guide. Accessed in August 2019 this showed that

Table 1

Comparative Housing Prices

City	Price 2019 (Hong Kong = 100)		
London	92		
New York	60		
Paris	56		
Geneva	50		
Stockholm	30		
Berlin	26		
Madrid	21		
Brussels	14		

Source: https://www.globalpropertyguide.com/most-expensive-cities.

London was the second most expensive city in the world after Hong Kong (Table 1). New York, a richer and bigger city-region, was substantially cheaper, as were major European cities such as Paris. Prices in Stockholm, Berlin or Madrid were less than a third of those in London with Brussels, the beneficiary of no containment policy, the cheapest major city in Western Europe.

It is not just the restriction on the supply of land that prices people out of living where they want and would be most productive (see Cheshire 2018; Cheshire et al. 2014; or Hilber and Vermeulen

2016, for a discussion of other factors) but the Green Belt, imposed for containment, no longer even 'contains'. People are forced to jump across it in their search for affordable housing space, creating ultralong-distance commuting as Figure 3 reveals.

Between 2001 and 2011, the mean distance from central London of the 10 census wards with the biggest proportionate increase in employed residents commuting to London was 166 kms – so a round trip of 332 kms per day. The five English local authority areas with the biggest growth in commuting to Central London were Richmondshire in N. Yorkshire, Mansfield in Nottinghamshire, Derby, Gloucester, Rugby, and Shropshire. The price of an annual season ticket for travel from York to London is £14,888. A skilled professional worker in London might be paid £80,000 a year so this would represent nearly a fifth of their annual salary and would be paid out of post-tax income.¹

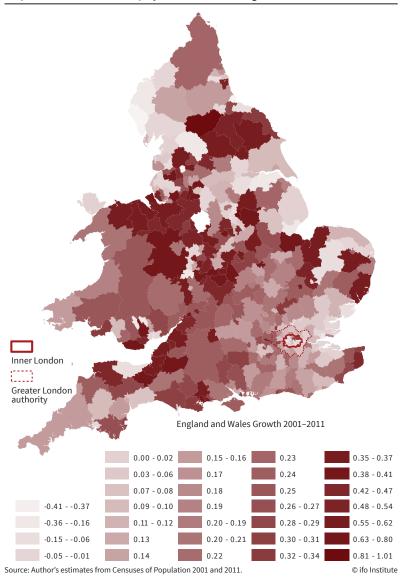
The evidence strongly suggests, therefore, that rigid containment policies, such as growth boundaries or Green Belts, in the long run not only fail to contain but substantially increase housing costs, reduce housing quality by restricting the size of new houses, and cause a loss of agglomeration economies by restricting the size of larger cities and preventing people from moving to where they would be most productive (Hsieh and Moretti 2019; Osman 2019).

COST OF CONTAINMENT BY POVERTY AND POOR PLANNING

Why is this self-inflicted damage to cities comparable to the problems of mega-cities in poor coun-

Britain has deregulated and cheap air travel. The author has an immediate colleague who lives in Berlin and commutes weekly to London during the university term.

Figure 3
Proportionate Increase in Employed Residents Working in Inner London 2001 to 2011



tries, such as Lima in Peru? This is because in many such cities a failure to plan to accommodate growth and expand in an orderly way has created its own comparable problems. Lima is constrained by its own unplanned, high density slums and shanty towns that have grown up around it. Lima may be in an arid tropical desert but is watered by three rivers flowing from the Andes and because of being almost surrounded by the cool Pacific enjoys a temperate climate. Its population over the past 40 years exploded: it doubled from 1981 to 2001 and has doubled again since.

Most of this population gain resulted from the mass migration of poor people from the country-side. This flow was driven partly by poverty but strongly also by that historic advantage of the city: protection against lawless depredation, civil unrest and banditry. A revolutionary Communist movement, the Shining Path, was launched in Peru in 1980 and enjoyed substantial success, certainly forcing

people from the countryside. Although still not finally finished, the Shining Path progressively lost its power to disrupt from the early 2000s.

This flood of poor people coupled with a weak central administration led to a ramshackle explosion of Lima. The city is in effect two cities: a central city of pleasant boulevards, parks, beaches, and 20th century development with the ancient Spanish city, now just a small historic CBD, at its northern extreme; and surrounding this a city of perhaps six or seven million poor immigrants living in badly built or self-built unserviced settlements. This high-density unplanned city cuts off the modern Lima even from its international airport and makes transport in, out or about the city by road hugely more congested and costly than it need be. Given that the land is now occupied and claimed, retrofitting modern infrastructure is too expensive - both politically and economically - to implement, perhaps even to contemplate. Lima has a containment boundary of slums which greatly reduces the potential agglomeration economies it

size could generate. Transport and productive interactions within the metropolitan area are seriously impeded by a lack of transport infrastructure and the costs of retrofitting such infrastructure.

CONCLUSIONS

Containing the growth of cities, whether by policy or by accident, has substantial costs in terms of foregone agglomeration economies. Such agglomeration economies benefit not just the inhabitants of larger cities but the national economies in which those cities are located. Because workers who move from larger to smaller cities retain productivity gains obtained from living in larger cities, the agglomeration economies generated by large cities, benefit smaller cities too.

City size brings costs but effective policy can reduce these costs. Such effective policies would be to restrict the rise in the costs of space by freeing up the supply of space (not restricting it); by reducing the costs of congestion by proper pricing of road space and, as cities get bigger, investment in mass transit; and by controlling pollution and crime. A vital role of public policy for cities is also to offset for failures in land markets. Land markets are particularly susceptible to problems of market failure both because of spillovers and the importance of public goods such as civic public space and green space for the quality of urban life. Some of the spillovers between land parcels – such as pollution or aircraft noise – can be geographically very extensive. These issues provide a powerful argument for urban planning.

A less widely appreciated argument for planning is urban growth itself. Unplanned growth – as in the case of Lima – itself causes problems and reduces potential agglomeration economies. Urban policy does not need to contain cities; it needs to plan for their growth. This is a process elegantly described by Bertaud (2019) and originating with the ancient Greeks. There needs to be a clear demarcation of private land, to be developed by (regulated) markets, from public land for street and road networks, utilities and public goods and future urban expansion. This division needs to be capable or replication as the city grows outwards.

There is no evidence urban land take itself is the result of market failure or exacerbates problems such as climate change. The inhabitants of cities use less carbon than the inhabitants of rural areas. Agglomeration economies create their own incentives to increase density. Pricing and regulation can further reduce energy use. As the quotation from OECD (2018) at the head of this article suggests, even the OECD may be having second thoughts about containment policies.

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Florian W. Bartholomae and Alina M. Schoenberg

Two Shades of Urban Shrinkage: Innovation and Economic Structure in Cities with a Declining Population

INTRODUCTION

More than 55 percent of the world population and 74 percent of the European population is living in urban areas (UN 2018). The ongoing trend towards worldwide urbanization has led to prosperity in many regions. According to the European Commission (2016), urban areas across Europe account for 85 percent of the European GDP. Cities are drivers for economic growth and innovation that control knowledge, capital, and communication on a global level (Sassen 2001; Gereffi 2005). However, socioeconomic (employment, technological progress, poverty, social exclusion), demographic (population loss, aging) and physical (infrastructure, housing) factors as well as their interaction are determining the profile of European cities, allowing to describe urban differences in development as a 'spatial manifestation of globalization' (Martinez-Fernandez et al. 2012). In addition, the different historical and political background has led to different challenges that European cities face and to different (institutional, financial, economic, social) resources available to appropriately enhance urban growth and resilience.

First, cities that successfully underwent structural change and that manage to deal with technological transformation are experiencing not only the advantages of economic progress, but also negative effects related to congestion, pollution, segregation, etc. Second, there are difficulties with achieving convergence across European areas. Some cities do not manage to benefit from the better economic, social, or cultural structures or from the improved living conditions related to urbanization, and often experience a lack of economic growth, population loss, and poverty. This urban decline is mostly occurring due to economic transformation and structural crisis (Hollander et al. 2009). The relocation and polarization of economic activities caused by the globalization in the last decades have led in many urban areas to a failure to carry out the shift from traditional manufacturing to innovation-driven high-tech industries and modern business-oriented services (Bartholomae et al. 2017). The local firms' weak absorption capacities of new ideas and technologies, as well as

their limited levels of entrepreneurship, have been reducing the flexibility and risk-taking necessary for enhancing innovation and local economic growth, and have therefore further slowed down the transformation process. Consequently, many cities are facing a reduced fiscal base and financial bottlenecks that slow down the investment in local infrastructure necessary for the improvement of the entrepreneurial ecosystem in urban areas. Thus, traditional socioeconomic structure, slower industrial evolution, and production inefficiencies but also missing drivers for innovation such as the accessibility shortcomings of firms' R&D cooperation with local research institutes, missing knowledge transfers, and personal exchange between firms, etc. determine the level of urban decline and shrinkage.

This paper primarily concentrates on identifying whether innovation activities and differences in economic structure have helped prevent or overcome the economic downturn in shrinking German cities by challenging the widely assumed parallelism between demographic and economic development. Based on the city typology by Bartholomae et al. (2017), who suggest that urban shrinkage is as a combination of both population and economic decline, while showing that some cities manage to enhance economic growth despite losing population, our estimation is carried out using a probit estimation model. This approach allows the factors related to innovation and economic structure that increase the probability of generating growth in cities with population loss to be predicted. The analysis is structured as follows: the next section provides information on urban shrinkage and urban policy in Germany. The third section shows the main findings of the estimation, followed by the fourth section which concludes and discusses the implications of activating and using the endogenous innovation potential in shrinking cities.

SHRINKING CITIES AND URBAN POLICY IN GERMANY

According to Bartholomae et al. (2017), German cities can be categorized into four groups with respect to their economic and demographic development. Economic development is measured as the change in real gross value added (GVA) and demographic development as a change in population. Cities that experience both economic and demographic growth are classified as 'growing cities' while 'shrinking cities' face demographic and economic decline. The remaining two types of cities challenge the parallelism between economic and demographic development: 'smartly growing cities' manage to achieve economic growth despite their demographic decline. 'Population magnets', though, achieve an increase in population without generating more economic growth. As shown in Table 1 in the period 2000-2016,



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Table 1
Change in Population and Real GVA 2000–2016

	Total number	Population change (%)	Real GVA change (%)
Growing cities	60	+ 8.7	+ 22.3
Growing cities			
Smartly growing cities	36	- 3.8	+ 12.5
Population magnets	3	+ 3.4	- 8.8
Shrinking cities	9	- 8.6	- 3.9

Source: Own calculations based on data from the German Federal Statistical Office.

45 (i.e., 42 percent) of the considered 108 German cities experience population loss. However, only 9 cities (8 percent) face an economic downturn at the same time. In terms of both economic and demographic growth, 'growing cities' outperform any of the other types. Despite their constant increase in population, 'population magnets' face a higher economic downturn than 'shrinking cities'.

Table 2 shows that the distribution of several city types is different throughout Germany. Most of the 'growing cities' are located in the south of Germany, while most of the shrinking cities are in the west of Germany, mainly in regions with a structural transition like the Ruhr area. Nevertheless, many struggling cities are also in eastern Germany. Looking at the distribution of cities within the regions, only 47.4 percent of eastern German cities and 42.5 percent of western German cities are growing, while the same figures are significantly higher in the south at 73.5 percent, and in the north at 60.0 percent.

The utilized data suggest that while the loss of population does not necessarily lead to urban decline, an increase in population might not be that reliable in predicting urban economic success either. Furthermore, it is important to acknowledge that the multitude of factors such as the post-socialist transformation, deindustrialization, aging, and low fertility rates that hit German cities require differentiated strategic approaches, thus raising the standards in urban policy and planning. In other words, passive shrinkage-oriented policies that aim at increasing or at least maintaining the population size by increasing the local attractiveness for residents more than for businesses (Wiechmann and Pallagst 2012; Lin 2014; Hospers 2014) is not preventing urban decline even if it succeeds in attracting population.

Table 2
Distribution across Germany by City Classifications

	East	West	South	North
Growing cities	15.0%	28.3%	41.7%	15.0%
Smartly growing cities	22.2%	44.4%	19.4%	13.9%
Population magnets	0%	66.7%	33.3%	0%
Shrinking cities	22.2%	55.6%	11.1%	11.1%

Note on the definition of regions: East: Berlin, Brandenburg, Mecklenburg-Western Pomerania, Saxony, Saxony Anhalt, Thuringia; West: Hesse, North Rhine-Westphalia, Rhineland-Palatinate, Saarland; South: Baden-Wurttemberg, Bavaria; North: Bremen, Hamburg, Lower Saxony, Schleswig-Holstein.

Source: Own calculations based on data from the German Federal Statistical Office.

As shown in Table 3, federal funding of urban development programs in Germany has been addressing mostly urban regeneration and revitalization programs aimed at preserving historic city centers and improving living conditions in urban areas. As the federal share of

funds is only one-third of total funding, the extent of the shrinkage-oriented urban policies becomes clearer. Only two programs explicitly aim at improving the economic environment in urban areas. If the full amount of these programs is set in relation to the total funding, only 24 percent of funding has been directed towards enhancing the local innovation potential or improving location factors for businesses. In addition, the disproportionate funding of urban programs in eastern German cities is noticeable: almost 48 percent of the total funding is allocated to this region, while in average only about 20 percent of the German population lives in this region. In contrast, the cities in the western part of Germany with a large number of cities and a high proportion of the total German population (about 35 percent) received less than 24 percent of total funds, allowing for further shrinkage (55 percent of cities there are shrinking demographically and economically). It also becomes clear that the funding has not been designed to consider the different factors contributing to urban shrinkage in German cities. The general character of the policy programs can therefore not address the specific needs of urban change in German cities.

However, the relevance of an active, growth-oriented policy in Europe was pointed out stronger in the 2007–2013 funding program by the allocation of funds directed towards urban development programs, allowing for a better achievement of cohesion goals in urban areas. The Urban Agenda was launched in 2016 with the Pact of Amsterdam in order to raise awareness and improve understanding of the opportunities and challenges in European cities given the current structural, demographic, social, and climatic changes that urban areas in Europe are experiencing. The urban policy has become central to the EU regional policy in order to support the potential

for growth, innovation, and creativity related with urban areas, but at the same time to help prevent poverty and segregation that might occur as an accompanying symptom to structural change in cities. Those programs acknowledge that enhancing prosperity in urban areas requires economic dynamism based on

Table 3
Federal Subsidies for Urban Development of Cities in Germany

Program	Start	rt Goal and major orientation		Total federal spending until 2018 (millions of €)			
			East	West	South	North	
Social City (Soziale Stadt)	1999	Urban revitalization investments to improve living conditions Orientation: demographic	407	636	449	266	
Urban Reconstruction (Stadtumbau)	2002/ 2004	Overcoming demographic and eco- nomic structural changes and the as- sociated urban development impacts Orientation: demographic and eco- nomic	1,990	557	385	217	
Urban Heritage Preservation (Städtebaulicher Denkmalschutz)	1991	Preservation of historic city centers Orientation: demographic	2,471	148	152	69	
Active Inner-city Development (Aktive Stadt- und Ortsteilzentren)	2008	Construction measures to strengthen the diversity of use with measures for participation and involvement Orientation: demographic and slightly economic	228	337	309	139	
Smaller Towns and Municipalities – Supra-local Cooperation and Networks (Kleinere Städte und Gemeinden - überörtliche Zusam- menarbeit und Netzwerke)	2010	Providing services for the public in sparsely populated areas Orientation: demographic	109	146	117	63	
Future Urban Greenery (Zukunft Stadtgrün)	2017	Improvement of urban green infra- structure Orientation: demographic	17	26	23	16	
Urban Regeneration and Develo- pment Measures (Sanierungs- und Entwicklungs- maßnahmen)	1971- 2012	Adaptation of existing structures in need of renewal from different epochs and typologies to changing needs Orientation: demographic	2,995	2,252	1,645	1,103	

Note on the definition of regions: East: Berlin, Brandenburg, Mecklenburg-Western Pomerania, Saxony, Saxony Anhalt, Thuringia; West: Hesse, North Rhine-Westphalia, Rhineland-Palatinate, Saarland; South: Baden-Wurttemberg, Bavaria; North: Bremen, Hamburg, Lower Saxony, Schleswig-Holstein.

Source: Own calculations based on data and description of urban development funding by the federal government and the Länder provided by the Federal Ministry of the Interior, Building and Community, https://www.staedtebaufoerderung.info.

sectoral heterogeneity, involvement in global production processes, appropriate entrepreneurial infrastructure, R&D investment, human and social capital while also recognizing the threats of technological transformation for urban resilience. Economic growth, resource efficiency, social inclusion, and ecological sustainability have to be achieved in order to improve urban resilience and support urban development allowing for conditions worth living within and across German cities.

INNOVATION AND ENTREPRENEURSHIP IN SHRINKING CITIES

The aim of our analysis is to check whether cities engaging in more innovation and entrepreneurial activities are more likely to be 'smartly growing cities' than 'shrinking cities' and to explain their economic growth in spite of the loss of residents. As we want to highlight the special characteristics of smartly growing cities with respect to their innovativeness, we have to divide our sample of German cities into 'smartly growing cities' and 'shrinking cities'. We consider 45 cities between 2000–2016. Since the model outcome is binary (1 for 'smartly growing cities' and 0 for 'shrinking cities'), we chose a probit

estimation that models the inverse standard normal distribution as a linear combination of predictors by using panel data. We estimate the probability that the dependent binary variable is a function of the economic indicators of interest.

We consider the number of patents that have been filed as an indicator for innovation outcome. Furthermore, we also included high-technology patents, which indicate innovation outcomes in this particularly growth-oriented sector. In order to control for the economic structure of the urban economies, we included the manufacturing sector's share in GVA as well as the share of the business service sector (especially knowledge-intensive business services) in GVA. Business services and their link to the manufacturing sector is a good indicator of regional innovation networks that increase the competitiveness in both sectors and contribute to the urban economic growth. In order to measure business dynamics and the entrepreneurial ecosystem, we included the amount of business registration per 1,000 inhabitants as well as the amount of insolvent businesses per 1,000 inhabitants. While the number of business registrations indicates the entrepreneurial spirit and the willingness of risk-taking in the cities, the number of insolvencies indicates whether

Table 4

Descriptive Statistics of Shrinking Cities and Smartly Growing Cities

	Smartly growing cities		Shrinkiı	ng cities	
	Mean Std. dev.		Mean	Std. dev.	
Manufacturing (% of GVA)	20.7	12.8	21.0	10.8	
Business services (% of GVA)	24.2	5.5	21.7	3.3	
Registered .de domains	26,262 31,4		13,579	10,543	
Patents (all)	33.136	36.860	18.310	22.644	
High-tech patens	4.270	5.170	1.969	1.730	
Business dynamics	9.190	1.753	8.735	1.299	
Insolvency dynamics	0.406	0.165	0.433	0.176	

Source: Own calculations based on data from the German Federal Statistical Office.

the urban business environment is beneficial to the growth and success of businesses. Furthermore, innovation is often disruptive and therefore a threat to old firms (see Schumpeter (1942)'s creative destruction), but contributes to an increase in (overall) production, yielding also high numbers in business registrations as well as insolvencies. Finally, we also included the number of registered .de domains to capture an indicator of the digitalized economy.

Table 4 compares the means and the standard deviations of the relevant variables. Applying the t-test shows that business services, registered .de domains, patents, and high-tech patents differ significantly between 'smartly growing cities' and 'shrinking cities', while the difference in business dynamics is only significant at the 10 percent level. Thus, innovation dynamic in 'smartly growing cities' measured in patents and high-tech patents seems to be larger compared to 'shrinking cities'. In addition, the higher importance of the business services sector, which in general enhances more innovation, indicates a positive correlation between innovation and, in our definition, 'smart growth'.

Table 5 reports the estimates of the probit regression. The results suggest that higher innovative

Table 5

Results of Probit Estimation

Parameter	Coefficient
Constant	- 5.058***
	(1.661)
Manufacturing (% of GVA)	5.304***
	(1.738)
Business services (% of GVA)	24.542***
	(5.210)
Registered .de domains	2.971E-5**
_	(1.298E-5)
Patents (all)	-0.008
	(0.009)
High-tech patens	0.034
	(0.063)
Business dynamics	0.146
	(0.097)
Insolvency dynamics	- 5.202***
	(1.015)
Log-likelihood	- 70.599
N	214
Significance levels: *** p<0.01; ** p<0.05; * p	<0.1

Source: Own calculations based on data from the German Federal Statistical Office.

and entrepreneurial activities increase the likelihood of being a 'smartly growing city'. The estimation shows that cities with a higher share of GVA in the manufacturing sector and a higher share of business services in total GVA are more likely to improve economically despite their population loss. (Knowledge-intensive) business services are

often an indicator for innovation and technological change because they serve as human-capital-intensive intermediary input for other sectors and are a key element in regional innovation networks that enhance firms' accessibility to R&D cooperation and product development. This kind of urban innovation system contains vertical and horizontal relations among firms, research institutions, regional development agencies, and financial institutions (lending bodies).

Since business success is strongly dependent on the cultural and business environment in which it occurs, spatial proximity to a developed business services sector is rather indispensable for a functioning manufacturing sector. While the business dynamics as the number of business registrations per 1,000 inhabitants does not significantly increase the probability of being a 'smartly growing city', the number of insolvencies per 1,000 inhabitants significantly reduces the probability of urban economic growth. This indicates that although there is entrepreneurial activity in 'shrinking cities', the entrepreneurial ecosystem is not developed enough to allow the complementary use of assets from an existing network of third parties (suppliers, competitors, consumers, etc.) and to ensure the survival of companies. In addition, there is a self-reinforcing process: more insolvencies lead to less growth, resulting in poorer economic conditions and more companies having to file for bankruptcy. Exogenous factors, such as an active growth-oriented urban policy, might help overcome this vicious circle.

While the number of total patents decreases the probability of being a 'smartly growing city', a higher number of patents in the high-tech sector leads to a higher probability of overcoming the economic downturn. This points to a higher commercialization potential of high-tech patents and emphasizes yet again the importance of modern industries for urban economic regeneration and growth. However, the estimation results related to patents are not statistically significant.

A significantly higher probability of being a 'smartly growing city' is also induced by a higher number of registered .de domains. Unfortunately, there is no direct distinction as to how the registered domains are divided into private use (e.g.,

family homepages or blogs), business use (e.g., company websites or online sales channels) or use by organizations (e.g., city governments, NGOs, associations). Nevertheless, web-presences indicate a trend towards a more open, dynamic and creative environment that is more likely to initiate innovation and change (Florida 2005). A high number of business domains suggests, on the one hand, a high business activity and, on the other hand, the intention to explore innovative and new business channels as well as models. Domains used by the public refer to innovative administrations that want to offer their services in a more targeted way, thereby shortening administrative paths and creating more room for innovation.

CONCLUSION

Many German cities are facing population loss caused by structural change, post-socialist transformation processes, low fertility rates, and aging. In this article, the focus was particularly on the comparison of cities facing the loss of population. Despite the often-assumed parallelism of development, many cities experience economic growth in spite of their demographic problems. This analysis has shown that both city types - 'smartly growing cities' and 'shrinking cities' - differ in terms of economic structure, entrepreneurship, and innovation. If a city has more innovation and entrepreneurship, it can overcome the downward spiral of demographic and economic decline by enhancing endogenous growth. However, federal funding for urban policy mainly focuses on regenerating city centers and residential areas, aiming to attract more residents with improved living conditions. These cities, relying mostly on shrinkage-oriented urban policies, will further encounter difficulties. It is therefore important to identify growth-oriented strategies to increase diversity among sectors by promoting entrepreneurship and attracting new innovative businesses that facilitate knowledge spill-overs within the urban areas as well as employment opportunities. Urban policies should enable competitive entries and entrepreneurial knowledge by reacting to the market development, business needs, and emerging opportunities. Furthermore, rather than the current generic formulation, urban strategies should set priorities with regard to the promotion fields, technologies, and activities in order to help reduce the reluctance of existing businesses to change.

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Gert-Jan Hospers

Overtourism in European Cities: From Challenges to Coping Strategies



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INTRODUCTION

Venice has been a tourist magnet for a long time. At the end of the 18th century residents already complained about overcrowding. Since two decades, however, tourism in the Italian canal and heritage city has exploded. Between 2003 and 2017 the number of tourist overnight-stays rose from 6.2 million to 10.2 million, while the city was visited by nearly 35 million day-trippers in 2017 (Nolan and Séraphin 2019). In the last group we find many cruise ships passengers and holidaymakers staying in accommodations outside Venice. At the same time, more and more residents have decided to leave the city center and move elsewhere - Venice has been a shrinking city for a long time. This population decline is not only due to rising house prices, but also to a feeling of discontent among many locals. They have negative opinions about tourists and feel that their city has been taken over. As a matter of fact, mass tourism has damaged the lagoon and built heritage of Venice, thus destroying exactly the attractions what visitors are looking for. Although the city council has recognized the downsides of tourism for long, it has taken action only recently. Examples of policy measures are limited entry for tourists with the help of pedestrian gates in the historic city center and fines for visitors that are disturbing public order.

The story of Venice is an extreme case of what experts and commentators have termed 'overtourism'. In a recent report edited by the UNWTO (2018, 4), overtourism is defined as "the impact of tourism on a destination, or parts thereof, that excessively influences perceived quality of life of citizens and/or quality of visitors experiences in a negative way". Besides Venice an increasing number of other European cities suffer from the side-effects of mass tourism. Examples are capital cities like Berlin, Copenhagen, Rome, Lisbon, Prague, and Amsterdam. But also smaller cities with an attractive touristic profile - think of Florence, Porto, Lucerne, Salzburg, Palma de Mallorca, and Dubrovnik - report problems. It is important to note that overtourism is always a matter of perception. Thus, it is a relative rather than absolute phenomenon: whether the quality of life for locals and the experiences for visitors are negatively affected depends on factors like the scale of the city, location of attractions and felt density. Yet we may say that an expanding group of European cities is confronted with the adverse effects of mass tourism. In this article we explore overtourism, its challenges and possible ways to cope with it. Next to a discussion of these issues at large, we deal with the case examples of Barcelona and Amsterdam, and strategies proposed by the World Tourism Organization. The article ends with a short conclusion.

CAUSES OF OVERTOURISM

Overtourism may be a growing concern for European cities, as a topic it is not entirely new. For instance, Doxey (1975) proposed an 'irritation index', an ideal type model mapping the changing perception of residents towards visitors in an area's touristic life cycle. In the tourism development of a destination Doxey identified four stages of local responses: after initial enthusiasm about the economic benefits of tourism (euphoria), attitudes tend to change with the growth of visitors. After a while, locals get used to tourists and may become indifferent (apathy). But when the number of holidaymakers exceeds a threshold annoyance comes in (irritation) that may even end in hostile feelings vis-à-vis tourists (antagonism). Obviously, the last two phases are relevant for overtourism.

Why are some cities more susceptible to be overrun by tourists than other ones? Also this issue has been analyzed before. In his seminal book The Tourist Gaze (1990), Urry suggests that visitors search for visual experiences that differ from what is seen in daily life. Tourists travel to destinations to 'gaze' at 'signs': they tend to look at special features of a place, such as a mediaeval cathedral, famous museum or spectacular event. These destinations are not randomly chosen; there is an element of anticipation, imagination and expectation involved. As a matter of fact, the 'tourist gaze' is always socially constructed. American tourists, for instance, would not visit the Charles Bridge in Prague per se, but only because they have been manipulated to do so by a variety of multimedia channels, be it magazines, movies, Instagram or other social media. They want to take the same picture that has been taken million times before. And because Prague is by definition unique - after all, there is not a range of Pragues, but only one Prague - they all decide to look for themselves. The result of this is an accumulated process inducing a touristic variant of the well-known 'Matthew-effect': crowded destinations become even more crowded.

What makes overtourism into a topical issue is the simultaneous occurrence of factors driving global tourism and the difficulties of local stakeholders in coping with it. For one thing, tourism is a world-wide growth sector: international tourist arrivals have exploded over the last decades and this development is likely to continue (UNWTO 2018). New groups of visitors, notably from China and India, have entered the market, while Airbnb has increased the supply of

accommodation in cities. Moreover, budget airlines such as Ryanair and China United have lowered the costs of travelling, making it affordable for more people. Add to this the popularity of 'bucket lists' (things one should do in one's lifetime) and it is clear why visitors prefer particular destinations (The Economist 2018). For another thing, stakeholders in these 'must see'-places are often ambiguous. Generally speaking, urban authorities and entrepreneurs welcome visitors since they bring in money, generate jobs and boost the city's image. But in the competition with other cities often short-term interests prevail. To be sure, protests from locals and worries on the unfavorable effects of tourism are recognized, but it seems hard for cities and their decision makers to make a sensible cost-benefit analysis and take the necessary policy interventions.

To make sense of this diversity of forces, Dodds and Butler (2018) provide a useful framework. According to them, there are three groups of factors enabling overtourism: agents of growth, technology and power. Factors linked to 'agents of growth' relate to the increase of the number of tourists. Experienced travelers tend to travel more now, while also new groups of visitors have entered the scene. The role of the factor 'technology' in facilitating overtourism is obvious. After all, developments in transport and communication technology have been tremendous. Innovation in these domains has resulted, for example, in less complex booking and traveling procedures, more affordable travel modes (e.g., low-cost carriers and cruise ships) and promotion and image building of places via social media. Under the heading of 'power', Dodds and Butler (2018) include the shortterm focus and growth mindset of local stakeholders as well the lack of agreement among them on how to deal with the growing influx of visitors to their city. Which group of factors is dominant in causing overtourism differs from city to city. For instance, in the charming Swiss city of Lucerne the rising number of Chinese tourists has led to 'tourismphobia' (Milano 2017). In turn, the emergence of Porto as a must-see destination is mainly due to technological factors: without Ryanair, easyJet and Instagram it would be less popular. And although in Venice all enabling factors play a role, the hesitance of stakeholders to take action and other power-related influences have contributed to the present situation of overtourism.

CHALLENGES OF OVERTOURISM

In debating overtourism it is often forgotten that tourism as such is beneficial for European cities. It is an important source of business activity, income and employment. Especially when visitors make use of accommodations, cafes and restaurants that are owned by local entrepreneurs rather than global chains, tourism has a lot of advantages. Most jobs may be seasonal, but they cannot be outsourced like

in manufacturing - tourism is by definition a placebased activity. Next to direct employment tourism generates indirect jobs, e.g., for building companies, catering services and cab drivers. In some well-known old industrial cities - think of Bilbao, Essen and Newcastle - tourism has played a crucial role in revitalizing the economy. It is no wonder therefore that policy makers across Europe have embraced tourism as a useful urban development strategy. This has also been the case in places where mass tourism is now considered a problem, like Barcelona and Lisbon. The quintessence is that 'more' does not always mean 'better'. When visitor numbers have crossed a line, undesirable economic, social and/or physical effects for a city may set in (Van Gorp et al. 2019). For local stakeholders these effects are creating challenges.

First, overtourism can lead to economic problems related to the 'tragedy of the commons' (Hall and Page 2006). What is the background of this? As we saw before, tourists tend to visit destinations to 'gaze' at public or semi-public attractions like a cathedral, museum or event. Although these attractions will be the primary visiting purpose, tourists spend most money on goods and services that are facilitating their visit, such as overnight stays in hotels, diners at restaurants, guide books and souvenirs. These supporting activities are the real 'money makers' for a tourist city - the rents go to entrepreneurs rather than to the actors responsible for the main attractions. To be sure, museums and event organizers may charge entry costs, but the revenues generated from this do by no means compensate the high costs to manage, maintain and conserve the city's primary attractions. In other words, the unique selling points of popular tourist cities have characteristics of 'commons', i.e., shared and unregulated resources that run the risk of overuse. In the case of overtourism visitors are partly 'free riders' - through their collective action they behave against the interest of the city as a whole. The result: the city is used by too many people, whereas the locals have to pay for the overloaded infrastructure, pollution and other disamenities.

Second, overtourism may have adverse social effects in that local communities experience a deterioration of their quality of life. In practice, complaints about the negative externalities of mass tourism sometimes end in protests, as incidents in Barcelona, Palma de Mallorca and Venice have made clear. Sometimes, residents do not feel welcome anymore in their own city. Take the example of the Mouraria district in Lisbon (Kiani-Kress and Ter Haseborg 2018). A decade ago, the Portuguese government regarded tourism as the solution for the Euro Crisis and loosened real estate laws and tenant protection. As a consequence, in Mouraria and other old city districts holiday homes were built and house renovations took place. The locals have been put off, while some of them were priced out due to rising living costs and had to move. However, it is important to note that 'the locals' should not be seen as a uniform group. Empirical studies indicate that residents' attitudes towards tourists differ. Here, several factors play a role, such as a community's dependence on the tourism sector, types of resident-visitor interaction, the distance of someone's home from the tourism zone and individual socio-economic features (e.g., education level) (Alrwajfah et al. 2019). In other words, Doxey's irritation index is not written in stone.

Third, overtourism can have negative physical effects on a city. This impact can take several forms, like damage to the built environment, its heritage sites and the ecosystem. A case in point is Venice (Nolan and Séraphin 2019). In the Italian canal city - note that it is built on wooden piles and surrounded by water - the high footfall of tourists poses serious threats to the conservation of monuments and bridges. Even worse, Venice has been sinking over the years due to a combination of dropping land levels and rising sea levels, which has increased the possibility of floods. Obviously, this process is accelerated by mass tourism. Since a few years, the situation in Venice has aggravated with the arrival of cruise ships: the large vessels do not only unload large numbers of tourists at once, but also disturb and pollute the local aquatic ecosystem. The coming of cruise ships to Venice has led to many protests, also outside the city's borders. The UNESCO, for example, has declared that Venice runs the risk to be removed from its prestigious list of World Heritage. The Croatian city of Dubrovnik - famous for its old historic city - got a similar warning by the UNESCO. Overtourism in both cities is criticized, not only with reference to the quality of life of locals. Also the decreasing quality of visitor experiences is an important argument to be critical.

CASE EXAMPLES: BARCELONA AND AMSTERDAM

How do European cities deal with the challenges of overtourism? Below we examine some of the measures taken by stakeholders in Barcelona (Spain) and Amsterdam (the Netherlands). Both cities are often seen as 'good practices' in handling mass tourism.

Barcelona

Since the Olympics in 1992 Barcelona (1.6 million inhabitants) has grown into an extremely popular tourist destination. In 2004 overtourism was identified as a problem and in 2008 the local authorities formally started taking action (Ajuntament de Barcelona 2017). The main actor in charge is the City of Barcelona. Over the last decade, it has followed a coordinated approach of visitor management that stands out in three respects. To start with, the city government bases its policies on an analysis of tourist flows and crowding patterns. To get the data needed, 'smart city'-tools and other digital techniques are used. Based on this knowledge the dispersal of visi-

tors across the city is promoted. Thus, overcrowding in the most popular tourist zones in Barcelona can be avoided. Next, in policy making and implementation the citizens always have had their say. The result of this participative approach is that more consensus on the measures has been reached than in cities like Venice and Lisbon. Perhaps it is also thanks to public engagement that the Barcelonese approach has been able to combine broad and integral strategies with small interventions on the street-level (Goodwin 2019). Examples of such 'micromanagement' are limitations to open new souvenir shops, agreements regarding guiding groups in public space and parking rules for touring cars. One of the challenges in Barcelona, however, remains the handling of rental accommodation. In some neighborhoods an unbalanced situation has emerged in the ratio of resident housing to tourism apartments. Locals are confronted with rising rents, while there are also complains about disturbance by visitors. To deal with this issue, the City of Barcelona has developed special urban planning rules and sends out teams of inspectors to check whether rental apartments are legally used by tourists.

Amsterdam

Just like Barcelona the Dutch capital of Amsterdam has become a popular tourist destination. In 2005 the city counted 11 million visitors, in 2017 about 18 million. Projections warned that without corrective policy action visitor numbers might even grow to 30 million in 2025. Therefore, a few years ago Amsterdam's city government launched a 'City in Balance'-program that strives for a new equilibrium between tourists and residents. From an international perspective, the policy goals and instruments are considered rather drastic and remarkable (Ehlers 2018). Indeed, the program's starting point is the idea 'visitors are welcome, but locals come first'. The City of Amsterdam aims to improve the quality of life for its inhabitants and develop a responsible view on tourism. Meanwhile, almost 70 measures to operationalize this city-in-balance policy have been taken (Municipality of Amsterdam 2019). For example, traffic flows in the city center are regulated, not only for coaches, taxis, lorries and bikes, but also for boats in the canals. Nuisance by tourists in public space is tackled with strict rules and high fines. To prevent a further homogenization of tourist supplies (e.g., chain hotels and Nutella-shops) there are street-centered policies to increase the variety, quality and authenticity of neighborhoods. In addition, there are 'Enjoy and Respect'-campaigns to make tourists aware that there are also people living in the tourist-historic city. At the same time, the city government tries to 'expand' Amsterdam's borders by urging holidaymakers to visit other places in the city region. For example, the adjacent city of Amstelveen, known for its greenspaces, is promoted as 'Amsterdam Forest', while the Dutch seaside resort of Zandvoort is marketed as 'Amsterdam Beach'. This dispersal policy is complemented with financial measures: people staying in hotels in the larger Amsterdam area pay lower tourist taxes than those who want to sleep in the city center.

COPING WITH OVERTOURISM

The strategy in Amsterdam to disperse visitors beyond the city's borders connects well with the recommendations made by the Centre of Expertise for Leisure, Tourism & Hospitality (CELTH) and the European Tourism Futures Institute (ETFI). The two institutes, both based in the Netherlands, were commissioned by the World Tourism Organization to examine overtourism and come up with proposals to handle it (UNWTO 2018). For this purpose, the experts from CELTH and EFTI analyzed residents' perceptions towards tourism in eight European touristic cities. Next to Barcelona and Amsterdam the researchers looked at the situation in Lisbon, Copenhagen, Berlin, Munich, Salzburg, and Tallinn. Based on the empirical findings the report suggests a range of strategies and measures to deal with the growth of visitors in tourism cities. Here, we only highlight some of the advises.

One set of recommendations deals with the dispersal of visitors, in both space and time. Telling examples are the marketing of attractions in lessknown parts of the city ('hidden treasures') and the organization of events in off-peak months or outside the tourist hot spots. In this respect, offering special visitor cards for unlimited local travel and discounts for new attractions and itineraries may work as an incentive. Other coping strategies that are recommended call for a better understanding of the city's carrying capacity, visitor flows and the behavior of different types of visitors. With the help of such knowledge and insights, local authorities can target and monitor their policy responses and improve the urban infrastructure (e.g., promoting secondary routes at peak times and waste management based on big data). Obviously, data-driven visitor management can also be used as an argument to review and adapt local traffic and housing regulations as well as tourist taxes. Most of the other recommendations in the report are linked in one way or another to communication with the people involved and engaging them, whether they be locals or tourists. For instance, it is advised to invest in city experiences that are positive for both residents and visitors. Other examples are informing visitors about local norms and stimulating inhabitants to share intriguing things about their daily environment on social media.

An interesting finding from the study is that residents' views towards tourism in the eight cities are not as negative as articles in newspapers and magazines often suggest. For example, the majority of the

people who participated in the study do not find it necessary that the growth of visitor numbers in their home cities should be limited (UNWTO 2018). To be sure, locals recognize the negative impacts of overtourism when it comes to price increases in housing, transport, shops and catering. But touristic activities are also associated with positive impacts, such as a more international atmosphere, a better image of the city and more attention for historical parts and traditional architecture. Against this background, it is not surprising that residents who want to stop tourism development and marketing are outnumbered. At the same time, there is a broad consensus to involve residents in urban tourism agendas more and to respond better to any complaints 'from the street'. In other words, when dealing with overtourism measures should not only be directed towards visitors and their behavior, but also to locals and their concerns.

CONCLUSIONS

The media increasingly reports on the challenges of overtourism in European cities. In popular destinations like Venice, Amsterdam and Palma de Mallorca the growth of visitors has caused worries on the quality of life - people feel that there are too many tourists in the city. In the present paper we have analyzed this issue with the help of some theoretical insights and anecdotal evidence. Theoretically, is not hard to explain overtourism: the growth of global tourism and the importance of bucket lists has led to a convergence of visitors to a limited number of places. However, instead of profiting from this 'winner takes all'-principle, local stakeholders are confronted with 'tragedy of the commons'-problems. Too many visitors in the same place may have negative economic, social and physical effects. Are there any solutions? Experiences in Barcelona and Amsterdam show how important it is to combine an overall vision on overtourism with street-level interventions, while experts consider engagement of the local population as a crucial success factor.

In the end, we think, it is the city government that is in charge. As an actor working for the public interest, the local authorities have the responsibility to develop a clear perspective on overtourism and take action. Ideally, these strategies and measures are based on a detailed cost-benefit analysis of tourism for the city in question - after all, for many places tourism is a significant source of revenue. In balancing the interests, finding a local optimum and managing visitor flows, the here-and-now should always be the starting point. What works in Barcelona or Amsterdam, is not necessarily working in Venice or Lucerne. Or as the experts stress in the UNWTO-report (2018, 7): "nevertheless, the effectiveness of measures is highly dependent on their specific context. There is no one-size-to-fit-all solution. Even within cities, management measures can differ between neighbourhoods". Paradoxically, to address overtourism, local policy makers might have to visit their own city.

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Chang Woon Nam and Peter Steinhoff

The Role of Volunteers in German Refugee Crisis and Their Contribution to Local Government Expenditure

In September 2015, Germany implemented a 'welcoming' open-door policy toward the refugees who made their way into Europe. However, images of the refugee crisis overwhelmed the country soon when approximately 1 million people came to it in 2015-2016, and many Germans started to question the optimism of the Merkel administration's 'Wir schaffen das' (Sola 2018; Jäckle and König 2017). Refugees have disproportionately settled in large German municipalities and cities, due also to better job prospects and social diaspora connections provided there. Eventually these communities - rather than the national government - were expected to solve problems related to accommodation and integration of new arrivals, including: "how to house, educate, train, and integrate individuals from different cultures, with varied education levels, who often need emergency health care and special services" (Katz et al. 2016, 1). Large numbers of individual volunteers have been engaged in a wide range of unpaid activities, from distributing food and medical aid to waiting for refugees in front of the national registration authority, to helping out at refugee shelters, teaching German, and longterm integration assistance. Many of them have also been the 'spontaneous unaffiliated volunteers' who are willing to assist community members and civil servants, but lack consistent training (Twigg and Mosel 2017).

Compared to the previous references concentrated on volunteerism in religion, health, environment, and school-related areas (Maki and Snyder 2015), our study tackles a more specific volunteering aspect revealed in the German refugee crisis. Following the investigations of general characteristics of the involved volunteers (gender, age, and income structure; donation types; time requirements), this paper attempts to calculate the monthly personnel and material costs as the opportunity costs of volunteering, which appear to relieve the local government financial bottleneck thanks to such volunteers' commitment.

High-quality local and regional data on volunteer activities in refugee matters is not yet available in Germany. For this reason, our empirical research adopts the statistics obtained by an online survey conducted among the volunteers in the district of Erding, near Munich. In 2015-2016 Erding was one of the most important initial reception and further distribution centers of refugees who entered Germany. The data was collected based on a questionnaire (with 14 questions) within the period from 15 November 2016 to 15 December 2016. According to the District Office of Erding, the Agency for Work, and the Job Center, the total number of volunteers in this area reached around 450 in December 2016. Among them 130 volunteers took part in the survey. Two major questions included in the survey are related to (1) the types of activities and services which the volunteers in the district of Erding provided; and (2) the scope of time and resources the volunteers invested in their commitment to helping refugees.

SOME BASIC THEORETICAL BACKGROUND

Volunteerism has grown steadily in most developed countries during the past decades and is becoming increasingly more complex at the same time. One of the crucial factors in its expansion is the scheme of collective finance and private provision of key welfare state services, since "volunteers accept to do unpaid work which is performed free of cost in order to benefit the community" (Sajardo and Serra 2011, 873). The theoretical explanation on volunteerism as a substitute for governments' declining role in providing social services is primarily based on the conventional crowding-out theory of voluntary provision of public goods (Duncan 2004; Freise 2017), combined with a warm-glow philanthropist consumption model (Romano and Yildirim 2001).

The former theory suggests that if people are concerned with the total amount of public service offered, they will treat government spending on such goods and services as substitutes for their own donations to the provision of similar services. Following this logic, Warr (1983) and Roberts (1987) argue that a complete crowding-out is likely to occur (e.g., one dollar of government subsidies will replace one dollar of donations), if donors are pure altruists - i.e., their only concern is the total amount of public goods available (Dehne et al. 2008). The latter warm-glow utility specification additionally introduces a donor's personal satisfaction derived from her own contribution into the utility function, so that she gets utility not only from the total provision of public goods but also from her own contribution. In this context citizens' voluntary and charitable activities appear to be stimulated by the 'intrinsic motivations' characterized by a 'prosocial disposition' toward helping others and communities (Clary et al. 1996; Banuri and Keefer 2016). In this case government spending



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on public goods does not necessarily crowd out private donations one for one, although some degree of crowding-out appears to be still possible (Simmons and Emanuele 2004). These two theories deliver some basic explanations why governments tend to stimulate volunteerism, which can consequently lead to savings in government expenditure.¹

Volunteering is often perceived as donations of time or labor, but it can also be donations of money or goods. Despite the problems related to the poor availability of data, valuing volunteer time has traditionally been of interest in academic research (Gaskin 1999; Mook et al. 2005), whereas the monetary value of latter types of donation can be more easily obtained. Repeatedly, the calculation of the economic value of volunteering via converting the value of volunteering time into monetary terms is not only a useful device for measuring the contribution made by volunteers to society (Knapp 1990), but also emphasizes that voluntary work can play a significant role for the local and national governments' expenditure behavior and budgetary decision-making.

It is not an easy task, but several methods have been applied to measure a monetary value of the output benefits from the time spent in voluntary work. A possible option is calculating the time spent in an unpaid activity at a 'comparable' market wage. The wage chosen is either (1) the 'opportunity cost' of the time the persons involved in unpaid work could have obtained if they had spent the time in paid work; or (2) the 'specialist wage' that would be needed to pay a specialist from the market to carry out her specific activity; or (3) the so-called 'generalist wage' that a general volunteer would be paid to do the unpaid work. The 'net' opportunity cost widely measures a volunteer's work at the after-tax wage rate, less work-related expenses, plus income by way of employer cost of superannuation and fringe benefits (Ironmonger 2008). Yet such calculations suffer from some weaknesses, since they ignore "that because [many] volunteers do not engage in any paid work, either because they are [retired] or because they have never been part of [active working population, e.g., students or unpaid houseworkers], there is [hardly any suitable market] monetary cost of opportunity. [Secondly,] the value that each volunteer places on her free time is subjective, is hard to compare from one individual to another" (Sajardo and Serra 2011, 881). Furthermore, the voluntary sector is largely endowed with the nonprofessional or amateur nature of its actions, based on the fact that using unpaid (volunteer) labor generates a lower (productivity and efficiency) level of commitment or performance of their tasks (Salamon 1987).

SPATIAL DISTRIBUTION OF REFUGEES, COST ALLOCATION AMONG DIFFERENT GOVERNMENT TIERS, AND THE ROLE OF VOLUNTEERS

In 2015, Germany took in 890,000 refugees and received more than 476,000 formal applications for political asylum. By 2016, however, its government reimplemented the border controls, whereby, thanks to the agreement made between the EU and Turkey in March 2016, Greece was allowed to send back 'irregular migrants' to Turkey, which has made the movement of refugees from the Middle East to Western Europe more difficult. As a consequence, the total number of refugees arriving in Germany in 2016 decreased to 280,000 (Sola 2018). Overall, such an inflow of the refugees within a short time period has led to an increase in German population of more than 1 percent, driven by the arrival of young men particularly from Syria, Iraq, and Afghanistan. Approximately 65 percent of all asylum seekers between 2015 and 2017 were male; around 50 percent were below the age of 24, and about a quarter of all refugees were children under 15 (Trines 2017).

As soon as asylum seekers register when they arrive in Germany, they are distributed to the individual federal states (Länder) using the Königsteiner quotas, of which annual calculation is based on the states' tax revenue (rated at two-thirds) and population (with a third share assessed). The difference in surface area among the states is neglected in this context - that is the reason why refugee accommodation is particularly difficult in the city-states of Berlin and Hamburg (Geis and Orth 2016). For the year 2015, the highest Königsteiner distribution quota amounted to 21.24 percent for North-Rhine-Westphalia, followed by 15.33 percent for Bavaria, 12.97 percent for Baden-Wurttemberg, 9.36 percent for Lower Saxony, 7.32 percent for Hesse, 5.10 percent for Saxony, 5.05 percent for Berlin, etc.

Even within the respective states, a separate distribution mechanism exists. In Bavaria, for example, the geographic allocation of refugees occurs based on the ratio to the population of Bavaria, firstly to the administrative districts (Regierungsbezirke), and then further on to the districts (Landkreise) as well as municipalities and cities (Geis and Orth 2016). Regarding the different shares among the administrative districts in Bavaria, Upper Bavaria is given 33.9 percent of the refugees, followed by Swabia with 14.5 percent, Central Franconia 13.5 percent, Lower Franconia 10.8 percent, Lower Bavaria 9.6 percent, Upper Franconia 8.9 percent, and the Upper Palatinate 8.8 percent. Within the administrative districts, it is once again determined which percentage of the refugees the individual districts and municipalities should receive. Particularly large cities like Munich and Nuremberg stand out, each providing accommodation for one-third of the refugees in their own administrative district.

¹ On the other hand, studies like Schiff (1985) and Brooks (2003) demonstrate the possibilities of emerging crowding-in effects, highlighting that an increase in government spending on public goods can stimulate an increase in private donations because donors assess the increased spending as a signal that their donations would now be more effective and generate a higher marginal product.

According to German federalism, the responsibilities for designing, financing, and implementing services for refugees are distributed among the national government, states, and municipalities including cities (Hummel and Thöne 2016). Table 1 suggests that a broad scope of tasks and substantial burdens related to the refugee matters lie at the state and municipal level (Kronenberg 2017). Citystates like Berlin, Hamburg, and Bremen, "by virtue of their unique status, are required to do double duty, tackling the full array of tasks that would normally be divided between the state and municipal level" (Katz et al. 2016, 14).

More precisely, German large cities and municipalities are assigned to carry out the following tasks in order to effectively integrate new arrivals into society, which include:

- a) Municipalities must provide both short-term housing for asylum seekers and long-term affordable housing possibilities for refugees – a difficult responsibility for large urban areas such as Berlin, Munich, and Hamburg, which already face rapidly growing housing prices and shortage pressure.
- Quick integration of refugee children into the public education system is crucial for long-term outcomes. Moreover, working proficiency in the German language is a prerequisite for the economic and social integration.
- c) For working-age adults' integration, entering the workforce should be achieved as soon as possible, which offers regular income and increases language acquisition.

Table 1
Distribution of Responsibilities Concerning Refugees among the Different Tiers of Government in Germany

Government level	Responsibilities	
National	Initial registration	
	Reception and processing of asylum applications	
	Integration classes	
	Job market integration	
	Unemployment welfare	
States	Registration	
	Creation and maintenance of initial reception centers and emergency reception centers (initial health check)	
	School affairs expenses according to asylum welfare bill	
	Health care for refugees in initial reception centers	
	Transportation of refugees	
	Security staff	
	Initial care and subsequent care of unaccompanied minors	
Municipalities	Registration	
	Creation of consecutive reception centers	
	Maintenance of reception centers	
	Health care	
 Local integration measures (e.g., through muni 		
borhood houses, sport clubs)		
	Coordination of volunteer efforts	
	Transportation of refugees	
	Security staff	

Source: Katz et al. (2016)

- d) Refugee populations are at increased risk for serious mental health trauma (including post-traumatic stress disorder, depression) which, if left untreated by appropriate health and medical care, can hinder their integration prospects.
- e) Local authorities must ensure access to services for refugees (e.g., financial services like bank accounts and credit), of which difficulties are caused by language and cultural barriers, in addition to insufficient documentation or status.
- Municipal authorities have to maintain a safe and secure environment for both local residents and refugees.

Due to the sharp rise in the number of refugees in 2015, the states and municipalities in Germany were totally overwhelmed (Table 2 for the case of city-state Hamburg) and demanded financial support from the federal government. They initially estimated the total cost of refugees in the states and municipalities at 20 billion euros per year, but foresaw a possible increase up to 30 billion euros in four years. In September 2015, it was agreed that the federal government would provide the states with 670 euros as a monthly flat rate per refugee. The German federal government spent at least 20.8 billion euros on aid to refugees and integration in 2017 (6.4 percent of the total federal government expenditures). In this context, the states and municipalities received around 6.6 billion euros,² and almost 7 billion euros went to fighting the causes of flight. In comparison, 20.3 billion euros had been spent on the same purposes in 2016, which accounts for 6.3 percent of the total

federal government expenditures (Bundesfinanzministerium 2018).

In this context it has often been highlighted that the engagement of

² In implementation of the federal and state decision on asylum and refugee policy of September 24, 2015, the federal government has provided the following relief for the states and municipalities: (1) subsidy for the expenses for asylum seekers - from registration to the decision by the Federal Office for Migration and Refugees (BAMF); (2) a lump sum of 350 million euros per year for unaccompanied refugee minors; (3) 339 million euros in 2016 and 774 million euros in 2017 for childcare; and (4) 500 million euros in 2016 and 2017 for social housing. In addition, in July 2016, the federal government decided to further support the relief of the states and municipalities with: (5) an integration package of 2 billion euros per year in 2016 and 2017; (6) a total of 1.3 billion euros for accommodation costs for asylum and protection beneficiaries; (7) another 500 million euros for social housing promotion; and (8) 226 million euros for the expansion of day care for children (Bundesfinanzministerium 2018).

large number of individual volunteers has not only enabled the government to better cope with the refugee crisis but also significantly contributed to the savings of government expenditure in Germany (Katz et al. 2016; TNS Infratest Politikforschung 2016). Karakayali and Kleist (2015) also suggest that the volunteers often fill in the gaps in which the state currently fails to take care, but insist that such volunteers' efforts should ideally be supplements in a form of state-voluntary cooperation – not fully replacing the government's tasks and responsibilities in emergencies (Coule and Bennett 2018).

VALUE OF VOLUNTARY REFUGEE HELPERS AND ITS CONTRIBUTION TO LOCAL GOVERNMENT EXPENDITURE: CASE OF ERDING DISTRICT

The Erding district (Landkreis), with about 135,000 inhabitants over an area of 870 square kilometers, is located about 30 kilometers northeast of the Bavarian state capital Munich and consists of two cities: Erding (36,000 inhabitants) and Dorfen (14,500 inhabitants), and a further 24 small municipalities. In both 'peak' years, 2015 and 2016, up to 60 refugees per week arrived in the Erding district which operated over 100 refugee shelters at the same time. For example, the vocational school gym in Erding city served as an emergency shelter of the government of Upper Bavaria. In 2017, few new refugees came to the district of Erding. Nevertheless, there were still more than 700 people in the asylum procedure and altogether 1,176 refugees were living there in January 2018. In spite of such a diminishing trend of refugee numbers, 46 civil-servant posts in the district office of Erding are at present directly or indirectly concerned with the management of asylum tasks, which additionally cost more than two million euros per year.3

Table 2
Costs of Services Delivered to Refugees by Hamburg City-State in 2015

	Services	Costs (in million euros)
•	Creation and maintenance of initial reception centers and emergency reception centers	147.4
•	Health care for refugees in initial reception centers	6.8
•	Health care for refugees in consecutive reception centers	45.0
•	Transportation of refugees	0.3
•	Security staff	20.1
•	Creation of consecutive reception centers	126.0
•	Maintenance of reception centers	37.3
•	School affairs	32.0
•	Expenses according to asylum welfare bill ^a	63.6
•	Initial care and consecutive care of unaccompanied minors	107.7
•	Total	586.2 ^b

Note: ^a In Germany asylum seekers are currently entitled to 15 months of asylum welfare, which includes a monthly allowance of 135 euros per single adult living in a reception center plus the costs of food and housing (see Asylbewerberleistungsgesetz). ^b This sum is equivalent to approximately 5% of Hamburg's total government expenditure in 2015.

Source: Hamburg City Government; Katz et al. (2016).

The characteristics of many refugee helpers in the district of Erding match relatively well with those of the so-called 'super-volunteers', defined as well-educated individuals aged 60+ who volunteer 10 or more hours per week (Einolf and Yung 2018). The following similarities and differences of major characteristics can be identified when they are compared to those of the nationwide findings in Karakayali and Kleist (2015) based on 460 samples:

- The dominance of female volunteers prevails also in Erding district (with a share of more than 65 percent of survey participants).
- In the district of Erding a large share of voluntary work (56.3 percent) is also carried out by the individuals with a net income of more than 1,500 euros per month. A further 14.7 percent is accounted for by the net income group of 1,000–1,500 euros per month it is also likely that more than 70 percent of the volunteers in Erding district assess their financial situation as rather stable.
- The commitment of young volunteers is weaker in Erding: most survey participants are older than 41, whereas the share of volunteers over 50 years old accounts for 54 percent.
- Most volunteers in Erding district work at least once a week (81 percent), and the 130 respondents perform altogether about 3,000 hours of volunteer work each month, which is strongly concentrated on medical accompaniment (9 percent), assistance on matters related to public authorities (15 percent), learning support (26 percent), and other matters (50 percent).
- On average, a volunteer is active for 24.4 hours a month in the district of Erding, while 55 percent of the refugee helpers work for up to 30 hours per month – largely comparable to the 33 percent

of respondents with 3–5 hours per week and 21.4 percent with as many as 6–10 hours on the national level demonstrated in Karakayali and Kleist (2015). Extrapolated to the 450 helpers in the district of Erding, this results in approximately 10,000 hours per month and 120,000 hours per year in the peak period of 2015–2016. Assuming that a full-time civil servant works approximately 1,615 hours per year,⁴ around 82 full-time positions

³ See interview with the District Administrator (*Landrat*) Martin Bayerstorfer – https://www.merkur.de/lokales/erding/erding-or-

t28651/1176-asylbewerber-im-landkreis-keine-neuen-fluechtlinge-mehr-9519560.html.

See also www.skverlag.de/filead-min/images_content/...rd.../RDM18_ Soll-Jahresarbeitszeit.xls.

would have to be created for the 120,000 hours worked.

Again, an average volunteer is active for 24.4 hours in a month. Although the income level of a larger share of volunteers is probably well

above the minimum wage, the current minimum wage of 8.84 euros per hour is applied for the calculation in consideration of the somewhat less-sophisticated natures of a large share of volunteer activities⁵ as well as due in part to reasons of simplicity. Moreover, the volunteers also brought in 'material' donations, of which the monthly value is estimated to be 66.2 euros on average. The type of material donation is rather diverse: for example, private cars were used, the volunteers worked with their own PC, printer, telephone, etc. In addition, tickets, stamps, and groceries were also purchased. From the value of the labor performed free of charge and the benefits in kind, the monthly performance of an average volunteer amounts to approximately 281.9 euros (= 215.7 euros + 66.2 euros). However, it should be borne in mind that this sum does not include the social security contribution of 42.9 euros (= 19.9 percent of 215.7 euros). Furthermore, volunteers do not receive continued payment in the case of illness or benefits such as paid vacation. This would increase personnel costs by a further 4 percent for sick leave (= 0.04 x 258.6 euros = 10.3 euros) and 8 percent for paid minimum vacation (= 0.08 x 258.6 euros = 20.7 euros).

In other words, even though the economic value of an average volunteer's performance is calculated based on the 'minimum' compensation rules and their application prescribed in German employment law, a substitute of this average volunteer by a normal employee subject to the German social insurance scheme would cause monthly personnel costs of 290 euros, in addition to the monthly material costs of 66.2 euros. Extrapolated to the total number of 450 voluntary refugee helpers involved in the district of Erding, Table 3 summarizes the possible monthly and annual opportunity costs.

As already shown above, if the calculation is solely based on the amount of working time, the district government of Erding should probably employ an extra 82 people in order to fully substitute these voluntary helpers.

Let us additionally assume now that the aforementioned

Table 4

Annual Wage of Full-1

Gross monthly wage of Full-1

Table 3
Opportunity Costs of Voluntary Work Performed by 450 Refugee Helpers in the District of Erding

Opportunity costs	Monthly	Annual
Personnel costs	130,500 euros	1,566,000 euros
Material costs	29,799 euros	357,588 euros
_ Total	160,299 euros	1,923,588 euros

Source: Authors' own calculation.

services performed by the individual voluntary refugee helpers can be rendered more efficiently through professional staffing, better organization, and process optimization by the local government, which in turn requires the recruitment of additional personnel to carry out such 'additional' public services. Furthermore, the total opportunity costs for such volunteer work (Table 3) are considered in the calculation as a sort of financial restriction.

Table 4 demonstrates an example of the gross salary calculation for the low-pay civil servants (without professional experience) working in German local government in 2017. At present, for a full-time employee in the lowest civil-servant payment grouping, the annual gross labor cost reaches approximately 34,000 euros. In other words, an additional 45 to 55 full-time public jobs are assumed to be required in the district of Erding for the substitution of the volunteers' contribution and at the same time should be financed in order to match the economic value of their efforts made in the peak period of 2015-2016. This would result in annual personnel costs of 1.6 million euros (without considering the material cost of 360,000 euros) and 1.9 million euros of personnel and material costs together for the lower payment group of local civil servants, respectively. This calculation result is also comparable to the real situation mentioned above: 46 civil-servant posts in the district office of Erding are currently dealing with the asylum tasks and refugee matters, which is estimated to create an additional local expenditure burden of more than 2 million euros annually.

To be sure, one can still question whether the survey results represent the 'true' income level and structure of the volunteers in the district of Erding; and all the activities that volunteers perform and their substitute could be assessed as those carried out by the minimum-wage group and the low-wage

Table 4
Annual Wage of Full-Time, Low-Pay Local Government Employees in 2017

Gross monthly wage	2,109.19 euros
12	25 210 20 2000
12 x gross monthly wage	25,310.28 euros
+ Annual special payment	1,730.80 euros (= 82.06% x 2,109.19)
 Gross annual wage 	27,041.08 euros
+ Social insurance: employer's contribution	5,273.01 euros (= 19.5% x 27,041.08))
+ Additional insurance scheme for civil	1,744.15 euros (= 6.45% x 27,041.08)
servants	
 Total annual labor cost 	34,058.24 euros

Source: http://oeffentlicher-dienst.info/tvoed/vka/; http://www.lohn-info.de/sozialversicherungsbeitraege 2017.html.

The skills-based volunteering aspects are not adequately considered in our calculations. For more about this type of volunteering in detail, see Maki and Snyder (2015) and Steimel (2018).

civil-servant group. Nevertheless, this rather simple but cautious calculation delivers some initial ideas related to the value of volunteers' work, which has significantly contributed to overcoming the German refugee crisis since the 2015–2016 period.

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The Bitkom-ifo Digital Index: A New Indicator for the Economic Development of the Digital Economy in Germany

With its monthly business surveys, the ifo Institute provides valuable indicators for economic development in Germany - not only for the economy as a whole, but also for many sectors and industries. The digital sector is an increasingly important sector, covering a broad spectrum of economic subdivisions associated with digitalization. This article illustrates how the results of the ifo Business Surveys can be used to construct a business climate for the digital economy that reflects the economic developments in this sector. The Bitkom-ifo Digital Index was developed in cooperation with Bitkom, the most important association of the digital economy in Germany. In addition to the methodical construction of the index, this article briefly describes current results and developments.

CONSTRUCTION OF THE DIGITAL INDEX

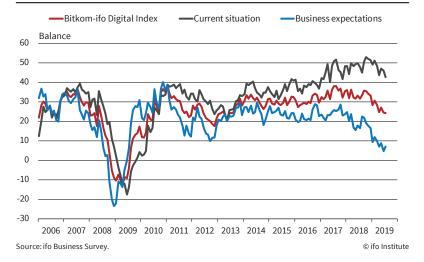
Information and communications technology (ICT) companies supply technologies and services for the processing and communication of data, which means they form the core of the digital economy. The special significance of ICT results from its function as an important driver of innovation and growth in almost all economic sectors. While digitalization was initially limited to individual company sectors and industries, it is now

increasingly shaping economic and social change. This makes digitalization a decisive factor not only for the competitiveness of individual companies, but also for the future viability of entire economies in the context of global competition.

Since the official classification of economic activities by the German Federal Statistical Office (Destatis 2008) does not feature a definition of the digital economy, the economic sectors that are to be included in the new digital index need to be defined first. In consultation with Bitkom, ifo has decided to include four manufacturing sectors (electronic components; computers and peripheral equipment; communication equipment; consumer electronics); wholesale and retail trade of information and communication technology; as well as three service sectors (telecommunications; computer programming, consultancy and related activities; data processing, hosting, and web portals).

To calculate the indicators for the digital economy as a whole, existing time series from the monthly ifo Business Surveys are used for the abovementioned economic sectors and aggregated with corresponding weights. These are based on the number of people employed in the respective sectors. With a total of 75.9 percent, the service activities have by far the largest weighting on the Digital Index. Trade activities (12.9 percent) and hardware manufacturing (11.2 percent), meanwhile, are included in the overall indicator with a lower weighting. The distribution also roughly reflects the number of participants in the ifo Business Survey. In total, the Digital Index is based on responses from around 400 companies. The calculation of the Bitkom-ifo Digital Index is analogous to the methodology of the ifo Business Climate Germany (Sauer and Wohlrabe 2018) in that it calculates a geometric mean of the current business situation and the business expectations.

Figure 1
The Bitkom-ifo Digital Index and Its Two Components



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RESULTS AND INTERPRETATION

Figure 1 shows the Bitkom-ifo Digital Index together with its two components, business situation and expectations. The time series starts in 2006 and is presented as a balance, which can theoretically range between - 100 and + 100. The business situation is currently (July 2019) rated very positively by companies in the digital economy. The majority of participating companies are satisfied with their current business situation. Since its peak in October 2018, however, the situation indicator has declined somewhat, although it is still at a high level. Expectations have been characterized by dwindling optimism since around mid-2017 - except for a brief phase in mid-2018. One reason for this was certainly that the already very good assessments of the situation could hardly improve any further. Correspondingly, companies indicated that the current situation should remain good. More recently, however, expectations were also characterized by a generally more skeptical outlook for the German economy. As a result, the Bitkom-ifo Digital Index has also declined in recent months, but the values are still clearly in the positive range. More detailed results can be found in Pols et al. (2019).

In comparison with the ifo Business Climate for Germany, the upswings and downswings of the two indicators largely coincide in time. This is also confirmed by the very high correlations between the series – more than 0.9 in each case. However, the short-term economic signals of the survey indicators may differ despite the fundamentally similar development of the series.

CONCLUSION

The Bitkom-ifo Digital Index is a new indicator for Germany's digital industry. It includes information from manufacturing, trade, and the service sector. The latter has the largest weighting in the index, as it mainly covers services related to the internet. Analogous to the ifo Business Climate Index for Germany, a business climate is calculated as a geometric mean of the business situation and expectations. The basic course of the new index is similar to the index for the economy as a whole, but it often also shows sector-specific information that differs from the overall development. The Bitkom-ifo Digital Index is the first economic indicator to explicitly deal with the digital sector. In the future, it will be published exclusively by the industry association Bitkom and can be accessed on the association's website along with other results. There are, for example, also time series for expectations of price or employee development or for negative influences on the business of the companies in the digital economy.

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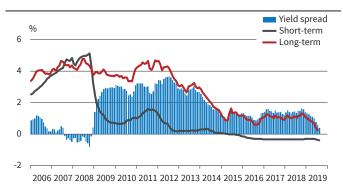
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Financial Conditions in the Euro Area

Nominal Interest Rates^a



^a Weighted average (GDP weights). Source: European Central Bank.

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In the three-month period from June 2019 to August 2019 short-term interest rates decreased: the three-month EURIBOR rate amounted to – 0.41% in August 2019 compared to – 0.33 in June 2019. The ten-year bond yields declined from 0.70% in May 2019 to 0.23% in July 2019, while the yield spread also decreased from 0.77% to 0.41% between June 2019 and August 2019.

Stock Market Indices

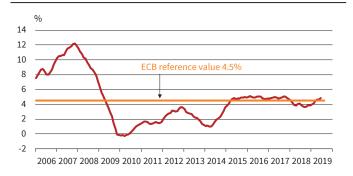


Source: Deutsche Börse; Dow Jones; STOXX.

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The German stock index DAX decreased in August 2019, averaging 11,720 points compared to 12,407 points in July 2019. The Euro STOXX also decreased from 3,508 to 3,355 in the same period of time. The Dow Jones Industrial was not an exception: it also decreased, averaging 26,058 points in August 2019, compared to 27,084 points in July 2019.

Change in M3^a

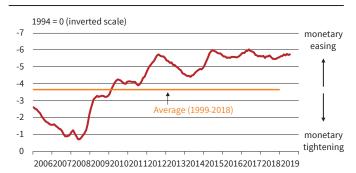


^a Annual percentage change (3-month moving average). Source: European Central Bank.

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The annual growth rate of M3 increased to 5.2% in July 2019, from 4.5% in June 2019. The three-month average of the annual growth rate of M3 over the period from May 2019 to July 2019 reached 4.8%.

Monetary Conditions Index



Note: MCI index is calculated as a (smoothed) weighted average of real short-term interest rates (nominal rate minus core inflation rate HCPI) and the real effective exchange rate of the euro.

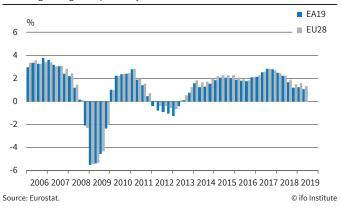
Source: European Central Bank; calculations by the ifo Institute.

Between April 2010 and July 2011, the monetary conditions index had remained stable. This index then continued its rapid upward trend since August 2011 and reached its first peak in July 2012, signaling greater monetary easing. In particular, this was the result of decreasing real short-term interest rates. In May 2017 the index reached the highest level in the investigated period since 2004 and its slow downward trend continued thereafter. Yet since October 2018 a gradual increase has been again observed.

EU Survey Results

Gross Domestic Product in Constant 2010 Prices

Percentage change over previous year



According to the Eurostat estimates, GDP grew by 0.2% in both the euro area (EA19) and the EU28 during the second quarter of 2019, compared to the previous quarter. In the first quarter of 2019 the GDP had grown by 0.4% in the euro area and by 0.5% in the EU28. Compared to the second quarter of 2018, i.e., year over year, seasonally adjusted GDP rose by 1.1% in the EA19 and by 1.3% in the EU28 in the second quarter of 2019.

EU28 Economic Sentiment Indicator

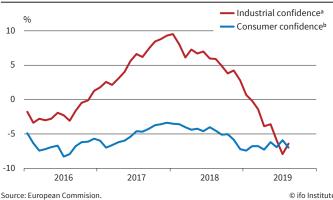
Seasonally adjusted



In August 2019 the Economic Sentiment Indicator (ESI) increased slightly in the euro area (by 0.4 points to 102.1), while it continued to decline in the EU28 (by 0.6 points to 101.4). In both zones the ESI stands above its long-term average.

EU28 Industrial and Consumer Confidence Indicators

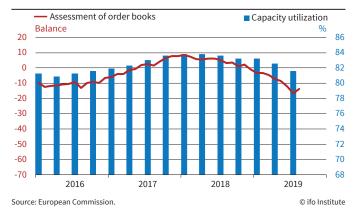
Percentage balance, seasonally adjusted



In August 2019, the *industrial confidence indicator* increased by 1.5 in the EU28 and by 1.4 in the euro area (EA19). The *consumer confidence indicator* decreased by 1.1 in the EU28 and by 0.5 in the EA19 in August 2019.

- The industrial confidence indicator is an average of responses (balances) to the questions on production expectations, order-books and stocks (the latter with inverted sign).
- New consumer confidence indicators, calculated as an arithmetic average of the following questions: financial and general economic situation (over the next 12 months), unemployment expectations (over the next 12 months) and savings (over the next 12 months). Seasonally adjusted data.

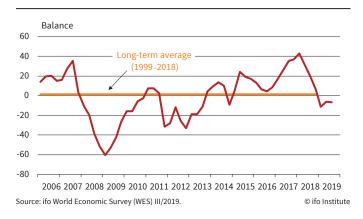
EU28 Capacity Utilisation and Order Books in the Manufacturing Industry



Managers' assessment of *order books* reached – 13.7 in August 2019, compared to – 16.7 in July 2019. In June 2019 the indicator had amounted to – 12.1. *Capacity utilization* amounted to 81.6 in the third quarter of 2019, down from 82.6 in the second quarter of 2019.

Euro Area Indicators

ifo Economic Climate for the Euro Area



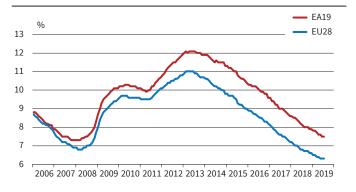
The ifo Economic Climate for the euro area (EA19) has hardly changed at all. The indicator fell slightly from – 6.3 in the second quarter to – 6.7 points in the third quarter of 2019. The assessment of the current situation has deteriorated again. However, economic expectations were less pessimistic. Currently, the euro area economy lacks momentum.

Exchange Rate of the Euro and Purchasing Power Parity



The exchange rate of the euro against the US dollar averaged approximately 1.12 \$/\$ between June 2019 and August 2019. (In May 2019 the rate had also amounted to around 1.12 \$/\$.)

Unemployment Rate



Source: Eurostat. © ifo Institute

Euro area (EA19) unemployment (seasonally adjusted) amounted to 7.5% in July 2019, stable compared with June 2019. EU28 unemployment rate was 6.3% in July 2019, also stable compared with June 2019. In July 2019 the lowest unemployment rate was recorded in the Czech Republic (2.1%) and Germany (3.0%), while the rate was highest in Greece (17.2%) and Spain (13.9%).

Inflation rate (HICP)

Percentage change over previous year



^a Total excl. energy and unprocessed food. Source: Eurostat.

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Euro area annual inflation (HICP) was 1.0% in August 2019, stable compared to July 2019. Year-on-year EA19 core inflation (excluding energy and unprocessed foods) amounted to 1.1% in July 2019, down from 1.3% in June 2019.