

**ORIGINAL ARTICLE**

Developing intermediate cities

Andrés Rodríguez-Pose | Jamie Griffiths

Cañada Blanch Centre and Department of Geography and Environment, London School of Economics, UK

Correspondence

Andrés Rodríguez-Pose, Dept of Geography & Environment, LSE, Houghton Street, London WC2A 2AE, UK.

Email: a.rodriguez-pose@lse.ac.uk

Abstract

Intermediate cities have experienced economic dynamism in recent years, but, with the focus firmly on large metropolises and sprawling megacities, the development potential of intermediate cities has stayed out of the limelight. This paper upholds the relevance and potential of intermediate cities, arguing that they can play as important a role – if not a more important one – than the large metropolises that, until now, have been the focus of attention. Intermediate cities hold considerable advantages, in particular for poverty reduction and as more efficient ecosystems to live and work. Untapping the potential of intermediate cities requires, however, more territorially balanced, place-sensitive strategies.

KEYWORDS

development strategies, economic development, intermediate cities, metropolises

1 | INTRODUCTION

This paper considers the potential to employ intermediate cities (ICs) as leverage for stronger economic development. Despite their prominence in the recent agenda of urban economics, large cities have not always delivered the highest level of growth. In the cases where they have, greater levels of economic growth and development have not spread to other parts of the urban system (e.g., intermediate and small cities) or to rural areas. Indeed, in many countries around the world, large cities have enjoyed political favouritism at the expense of smaller, less-favoured cities. Fostering large urban agglomerations has often been touted as the key to maximizing national economic development. In recent years, this has dominated the mindsets of policy-makers. However, growing evidence casts doubt on

This is an open access article under the terms of the Creative Commons Attribution License, which permits use, distribution and reproduction in any medium, provided the original work is properly cited.

© 2021 The Authors. Regional Science Policy & Practice published by John Wiley & Sons Ltd on behalf of Regional Science Association International.



this belief. The economic fortunes of large cities have been uneven, with especially megalopolises in the developing world struggling to grow and often unable to become catalysts of economic development.

This paper invites a closer discussion of new empirical evidence questioning whether betting on large cities is the only – or even the most important – way forward for economic development. It is argued that intermediate cities have considerable economic potential that remains largely untapped. The dominant policy focus on large cities, in combination with a more traditional one on lagging regions and rural areas, has meant that the potential of the rest of the urban systems has remained neglected. The result has been economic underperformance, rising inequalities and, increasingly, in systems that cannot cope with rapid population growth, pressures to deliver employment (especially outside the informal economy) and to prevent mounting economic, social and economic tensions.

Using descriptive data and past research, this paper will first posit that, in many countries, often neglected parts of the urban system (and, especially, intermediate cities) have been providing – and will continue to provide – significant economic dynamism. Second, it will be argued that, to maximize the development potential of territories, more balanced, place-sensitive strategies are needed. This would imply place-sensitive strategies for intermediate cities, as well as for larger metropolises and lagging areas. Such an integrated and comprehensive territorial approach is crucial to address growth and employment problems. Finally, this paper will examine what intermediate cities can do to address the social and economic problems that beset emerging areas and propose some measures to dynamize their potential.

This paper pulls together arguments from new and existing literature to highlight the importance of intermediate cities in economic development. In the first section, the paper highlights the growth of intermediate cities, which remain a central – although frequently overlooked – aspect of the urbanization process. Drawing on recent empirical analysis, we turn towards the growing body of evidence that challenges dominant mantras. We stress that large cities are not always the only or even the main drivers of economic growth. Hence, tapping into the untapped potential of intermediate cities is crucial to increase the wellbeing of populations across the world.

2 | RECENT URBANIZATION TRENDS: THE BASIC FACTS

The world has witnessed a rapid shift towards urbanization in recent decades. The world's urban population has multiplied, with large cities especially growing at a high rate (Jedwab et al., 2015). Between 1950 and 2015, the absolute urban population increased rapidly, with the biggest change coming from low- and middle-income countries, where urban population has increased tenfold to over 3 billion (United Nations, 2016). Africa and Asia have joined the ranks of Europe and the Americas as highly urbanized spaces. In particular, urban rise in Africa and Asia has proceeded at twice the rate of Europe during their early urbanization stages (Jedwab et al., 2015).

The rapid growth of large cities across world is noteworthy. As Figure 1 highlights, the share of people living in megalopolis has mostly increased in low- and middle-income countries, while the growth of the largest metropolises in Europe and North America has somewhat stalled (McCann & Acs, 2011). By 2030, there will be 43 megacities of over 10 million, mostly in developing countries, with nearly half the top 30 largest urban areas being in low- or lower middle-income regions (UN-Habitat, 2018).

Urbanization, however, has not only come from the growth in population of new or existing megacities. Rather, the growth of intermediate and small cities has often matched – if not outright outstripped – that of large urban areas (Roberts, 2014). Megacities may have stolen the spotlight as champions of urbanization and economic development, but are often neither the fastest growing nor representative of the majority of urban populations (Christiaensen & Kanbur, 2017; Dijkstra et al., 2013). Globally, there are around 2,400 intermediate cities with populations of between 300,000 and 5 million; as Figure 2 highlights, a large and increasing share of the world's population inhabits them. This is particularly the case in the upper-middle-income and high-income countries – mostly in Europe and North America – where the share of the population living in these cities is set to exceed 40% of the total urban population by 2030. By 2030, it is expected that globally over 3.8 billion people will live in intermediate cities with populations between 300,000 and 5 million (UN-Habitat, 2014).

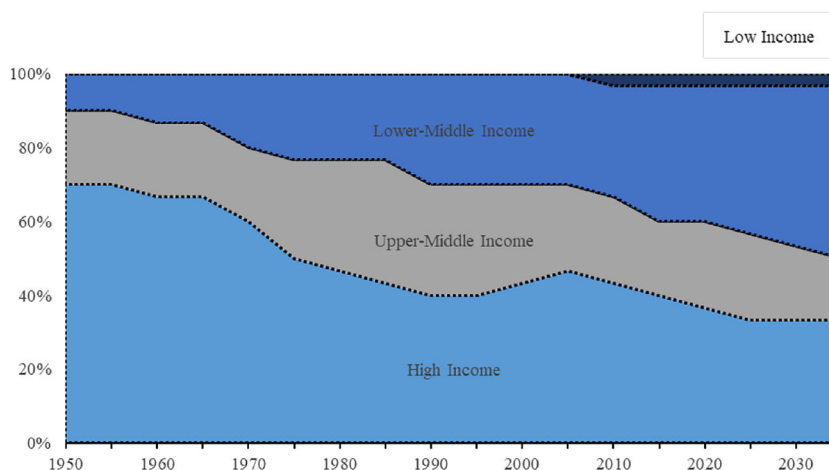


FIGURE 1 Location of the top 30 urban areas globally according to the income per capita of the country Adapted from: United Nations, Department of Economic and Social Affairs, population division (2018). World urbanization prospects: The 2018 revision, online edition

As Figure 3 illustrates, intermediate cities of between 300,000 and 5 million inhabitants will grow significantly everywhere by 2030. The largest growth will take place at the lower end of the intermediate city hierarchy (i.e., in cities of between 300,000 and 1 million inhabitants) and fundamentally in middle-income countries (Figure 3). It is estimated that, between 2010 and 2030, these types of agglomerations will account for almost 40% of global urban population growth (UNDP, 2016).

This growth is transforming urban systems. Until recently, highly concentrated city systems, with a large urban agglomeration at the apex, were considered to be the most adequate to foster economic growth (Venables, 2005). Recent evidence, however, suggests caution. Swelling urban populations at all points of the city size spectrum, as well as the growth of new urban areas, have driven a non-negligible fall in urban concentration across many parts of the world (Frick & Rodríguez-Pose, 2018a). Analysis of national Herfindahl index (HHI) changes – one of the most widely used measures of urban concentration – reveals that urban concentrations have been widely falling over the past 25 years. In total, 60% of countries exhibited falling HHI values, indicating that the urbanization story and associated economic development questions increasingly revolve around growth of intermediate cities. As such, given their sheer growing number and size, intermediate cities will have a greater influence on national and regional economic development (Roberts, 2014).

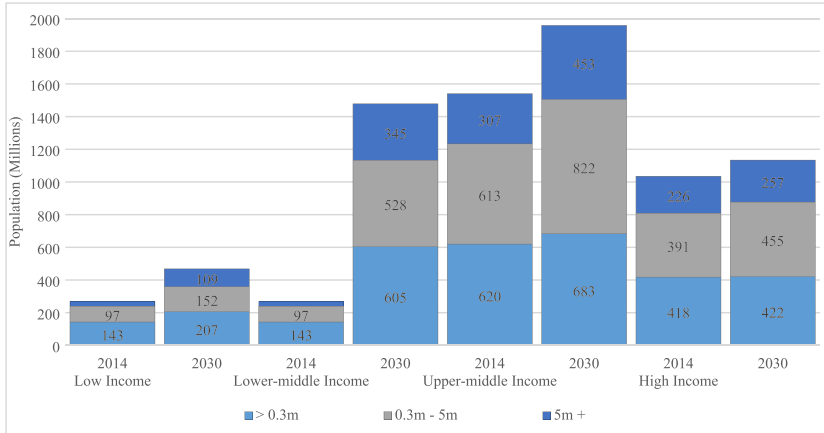
3 | PREVAILING THEORY AND THE FOCUS ON LARGE CITIES

The prevailing process of urbanization raises questions: to what extent is greater urbanization connected to economic dynamism?; and which types of cities are more likely to drive growth?

According to leading urban economic theories (e.g., Glaeser, 2011), urbanization and, in particular, the concentration of population in large cities should be good news. Two factors have been highlighted as drivers of economic growth and development: agglomeration and density. Large cities and megalopolises combine both. They generate economies of agglomeration that facilitate knowledge generation and diffusion, innovation, increases in productivity and, consequently, employment and economic growth. Megacities such as London (population 14.8 million), Paris (11.4 M), Tokyo (40.5 M) and New York (21.8 M)¹ are considered primary hubs of economic growth in a more globalized world, but also the key motors of economic growth for their respective countries. It has often been argued



(a) Population distributions of income groups by urban size class, 2014 and 2030



(b) Percentage distributions of income groups by urban size class, 2014 and 2030

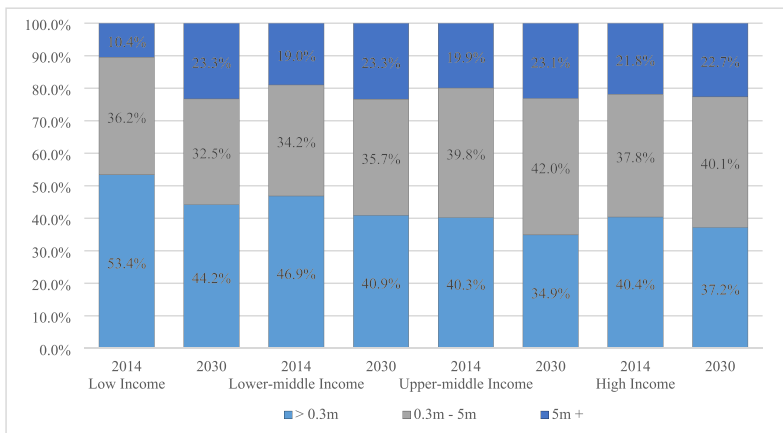


FIGURE 2 (a) Population distributions of income groups by urban size class, 2014 and 2030. (b) Percentage distributions of income groups by urban size class, 2014 and 2030

Source: United Nations Department of economic and social affairs/population division world urbanization prospects: The 2011 revision

(e.g., World Development Report, 2009) that fast-growing megalopolises in lower-income countries – for example, Istanbul (16.2 M), Moscow (17.4 M), Shanghai (34.1 M), Guangzhou (47.6 M), Jakarta (32.1 M), Bangkok (19.4 M), Manila (26.3 M), Mumbai (25.6 M), Delhi (31.3 M), Lagos (20.1 M), Nairobi (6.1 M), Cairo (21.5 M), Accra (5.2 M), São Paulo (22.6 M), Lima (11.1 M) and Bogotá (9.8 M), to name a few – can play a similar role (Glaeser, 2011). Additionally, large cities are often seen as the main vehicle to fight poverty. Whilst the link between urbanization and poverty reduction is complex and depends on many country-specific factors, empirical analysis makes clear the widespread trend of rising mean incomes and declining poverty when moving from rural to urban, albeit alongside rising inequalities (Christiaensen & Kanbur, 2017). Furthermore, concentrated urban systems – where a high proportion of a country's urban population lives in the largest city – are increasingly championed for their positive effects on economic development, driving agglomeration economies and productivity gains through market linkages, labour pooling and knowledge spillovers (Romer, 1986).

Hence, it comes as no surprise that the 21st century has been hailed as the 'century of the city', marked by 'prosperity, inclusion, partnership, and sustainability' (World Economic Forum, 2012). It is acknowledged that, by

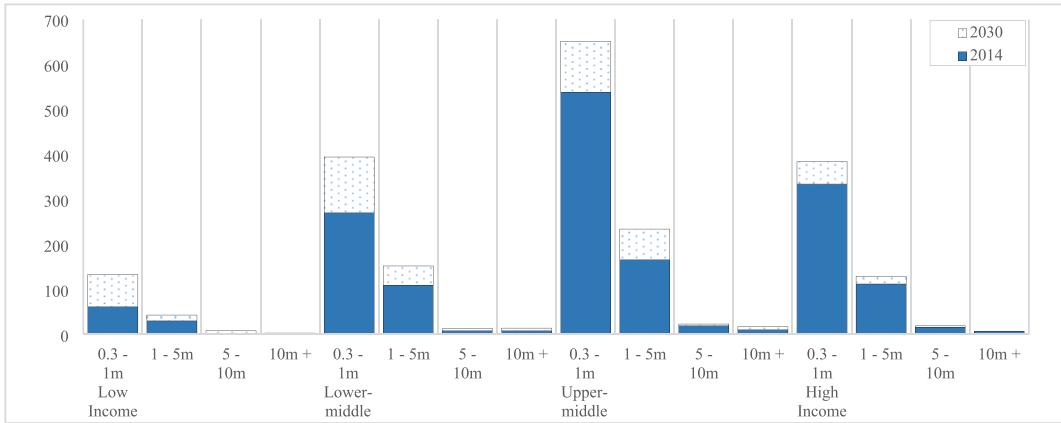


FIGURE 3 Changes in number of urban agglomerations, by size and income Adapted from: United Nations Department of economic and social affairs/population division world urbanization prospects: The 2018 revision

focusing urban policy on the larger cities, ‘economic growth will be unbalanced’ (World Bank, 2009), but this is considered a necessary step towards prosperity. As a consequence, it is frequently posited that spreading intervention to medium-sized and smaller cities may discourage greater growth as it serves ‘to fight prosperity, not poverty’ (World Bank, 2009). The dominant mantra is to resort to policies which move people to places where there are opportunities (i.e., by providing more affordable housing [Moretti, 2013]), not opportunities to areas with a far lower capacity to develop.

Over the past few decades, evolutions in the global economy have put the link between economic success and urbanization under increasing scrutiny. In particular, there is considerable discussion on the effects of city size. There is certainly no shortage of evidence that urban size and density matter in many parts of the world. Large cities have frequently outperformed medium-sized and smaller cities in their respective countries. Such has been the case in many Central and Eastern European countries, where the growth of capital cities – generally the larger cities – has clearly outstripped the rest of the urban system. However, this is not always true. As cities grow, the link between size and productivity is increasingly challenged. The world’s largest cities are not necessarily the most productive in all circumstances; 29 of the top 75 most productive cities are mid-sized agglomerations, with populations of less than 3 million (McCann & Acs, 2011). For example, intermediate cities and small towns are often at the apex of German urban dynamism (Brunow & Nijkamp, 2018).

Certainly, in the developed world and, particularly, in certain parts of Europe, intermediate cities increasingly act as drivers of economic development (Dijkstra et al., 2013). Intermediate cities have developed (and continue to develop) as industrial and advanced service hubs and, in many cases, have been the source of considerable innovation and productivity growth (Fritsch & Wyrwich, 2021). Intermediate cities have spawned – and frequently remain attractive to – some of the world’s leading and most innovative companies. As illustrated in Figure 4, almost half the Fortune Global 500 companies are based in cities of less than 5 million inhabitants; 17.2% are headquartered in cities of between 500,000 and 2 million, and 19% in places of less than 500,000. That said, just 4.4% of the Global 500 are located in intermediate cities in developing countries. Whilst the disadvantages that small and intermediate cities face relative to large cities in Europe and North America are, according to urban economics, considerable, this has not prevented the emergence of highly competitive and innovative firms – often dubbed ‘hidden champions’ (Simon, 2009) – capable of growing to the ranks of the largest global firms. Examples include Inditex, the world’s largest apparel company, created and still headquartered in Arteixo, a suburb of a medium-sized city in a relatively poor Spanish region, and Ikea, the global furniture retailer, which originated in Älmhult, a Swedish town of less than 9,000 inhabitants.

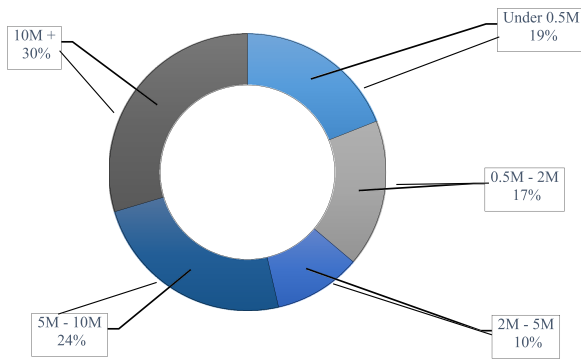


FIGURE 4 Distribution of the Fortune Global 500 companies according to city size, 2018 Adapted from: Fortune Global 500 (2018)

A somewhat different picture emerges, however, in Central and Eastern Europe and in other middle- and lower middle-income countries. Intermediate cities have largely remained out of the spotlight, which Roberts and Hohmann (2014) describe as ‘unrecognized primacy’: despite their increasing importance in urban systems, they have generally played second fiddle to their larger counterparts. Intermediate cities face several notable constraints that explain this. Firstly, they are confronted with considerable knowledge gaps concerning mechanisms through which they contribute to development. Despite greater focus on intermediate city successes across parts of Western Europe and North America, less is understood about their potential for economic development in Central and Eastern Europe, Asia and Latin America, to mention other areas of the world. In these areas, the emphasis has predominantly been on the interaction with nearby towns and their rural hinterlands. Intermediate cities have been regarded as the poles that provide essential markets for rural products, as well as functioning as transit hubs to larger metropolitan areas (Tacoli, 2004). They facilitate access to non-agricultural employment through non-farm seasonal work, enhancing circular rural–urban migration. They process and distribute agricultural goods provided by rural areas and absorb their skilled and unskilled labour (Berdegué et al., 2014). Moreover, limited available data means less is known relative to larger cities about their economic structure, governance, infrastructure, land uses or finances. This severely impacts their capacity to design and implement adequate development strategies (Roberts, 2014).

Secondly, intermediate cities are frequently overlooked in national or urban development agendas owing to a combination of lack of visibility (e.g., being considered less ‘sexy’ than large cities), a knowledge gap, and the research and policy gap they face. While megacities have been at the centre of research, interest in intermediate cities in academic circles has been, at best, intermittent – especially in less-developed contexts. Some studies have considered the competitiveness of smaller cities (e.g., Cadena et al., 2011; Dobbs et al., 2011; Leke et al., 2010), supporting the general view that they are often less competitive than leading primate cities. The specific dynamics of intermediate cities, especially in middle- and lower middle-income countries, remain a black box, which renders them at a disadvantage when designing development policies (Roberts, 2014). Not only are intermediate cities generally poorly researched; they have also been broadly neglected in policy. The common approach of national governments, as well as international organizations, has been to treat rural and urban and more and less developed areas in silos. Therefore, intermediate cities fall in between the cracks of the rural/urban developed/less-developed divides.

Thirdly, intermediate cities are challenged by a considerable resource gap. Local governments typically have limited authority and capacity to mobilize resources and generate the revenue necessary for adequate public service delivery, making them highly dependent on financial transfers from central governments (Roberts, 2014). Equally, policy has generally been biased towards larger cities to harness political rents (Ades & Glaeser, 1995). Greater concentration of infrastructure investment, enhanced capital market access or more accessible import/export licenses in large cities, to name a few, have frequently meant that favoured cities grow to larger



population sizes than non-favoured cities (Henderson, 1988). As such, the high prevalence of a large city bias has rendered intermediate cities at a disadvantage to larger counterparts, due to non-favoured status. Disparities in economic, physical and social development between city systems thus remain pronounced. Many intermediate cities have therefore been unable to develop similar industrial capabilities to their developed-world counterparts (Roberts & Hohmann, 2014).

4 | REVISITING POLICIES IN LIGHT OF EVIDENCE: DO LARGE CITIES ALWAYS DRIVE GROWTH?

Policy decisions have long been informed by the prevailing belief that large cities drive growth and development (Glaeser et al., 1992; World Bank, 2009). However, there seems to be a growing gap between these dominant theories and reality. Several factors may be driving this discord:

4.1 | Heterogeneity in evidence between developed and developing countries

Firstly, theories were initially supported by using data from high-income countries, especially the UK and USA. However, new empirical evidence increasingly puts the link between city size and economic success under greater scrutiny. Frick and Rodríguez-Pose (2016, 2018a, 2018b) have produced a number of analyses, many of which challenge dominant views about city size and economic performance. Crucially, their research finds no universal positive relationship between average city size and economic growth. Whilst the presence of larger cities is connected to economic growth in some developed countries, this is by no means the same everywhere. City size may, after all, have a negative impact on economic growth. Equally, further analysis suggests heterogeneity in the link between urban concentration and economic growth: higher urban concentration benefits economic growth in high-income countries, but there is far less evidence of this in less-developed and emerging countries (Frick & Rodríguez-Pose, 2018a; Ganau & Rodríguez-Pose, 2021).

There is also the question of poverty and its relationship with urban compositions. With rapid urbanization widely accepted as a defining feature of development, the growth of cities has formed a central element of national poverty reduction strategies (Christiaensen & Kanbur, 2017). Large cities have been associated with falling poverty, with the move to metropolises driving higher incomes and lower poverty rates (Ravallion et al., 2007). In many parts of the world, however, this link appears far from straightforward. Increasingly, large cities are losing their halo as gateways out of poverty. Poverty keeps rising, with considerable numbers of metropolitan residents living below or around poverty lines and even, in some cases, lacking basic services. Dynamic industry and productivity coexist with high rates of poverty in large cities (Frick & Rodríguez-Pose, 2016; Musterd et al., 2016). Christiaensen and Kanbur (2017) argue that, while a poverty gradient along the urban hierarchy remains clearly identifiable, investment into large agglomerations may not be optimal to reduce poverty. Rather, they highlight the mechanisms through which the growth of cities further down the urban hierarchy has a greater poverty-reducing effect. Therefore, reorienting public investments from big cities towards intermediate cities may have greater poverty-reducing impacts.

Taken together, discrepancies are in evidence of developed and developing country patterns of urbanization. Large cities and concentrated urban systems are not necessarily driving higher economic growth to the same extent as they may have done in specific periods of the past, nor are they the key to reduced poverty. Heterogeneities between country experiences of urbanization are shaping a different balance between economic benefits and diseconomies of scale in many countries (Jedwab & Vollrath, 2015). Several factors may underpin this:

Firstly, megacities are now, in many parts of the world, far larger than before. Many megacities are still on the path to economic and industrial maturity. Rapid urbanization observed in parts of Asia, Africa and Latin America over



the past 50 years has overwhelmingly occurred at low incomes and before widespread industrialization, leading to the dramatic growth of poor neighbourhoods and slums that often exist in national contexts of immature industries, weak institutions and underdeveloped infrastructure (Glaeser, 2014; Lall et al., 2017).

Secondly, the growth of many megacities has not always been matched by growth in employment. This sort of 'jobless growth' mitigates against the beneficial effects associated with agglomeration and density (e.g., Jedwab et al., 2015). In Latin America, for example, the main cities are large and dense, but are not always the catalysts of economic growth in the country. Furthermore, there is a growing appreciation of the imperative of other factors to facilitate the economic dynamism – or lack thereof – in cities, notably in the provision of urban infrastructure to boost agglomeration economies and mitigate diseconomies, but also in terms of softer factors such as institutional capacities (Castells-Quintana, 2017; Glaeser, 2014). Differences in industrial structure, poor infrastructure, institutional capacity and, crucially, the fact that many cities in middle-income countries are actually far larger than in high-income countries – and may already be at the decreasing part of the productivity curve – can make policies that put the emphasis on large areas inefficient and, in some cases, counterproductive. This reinforces the need to take a new, contextual approach to traditional wisdoms.

4.2 | Treatment of urban systems

The emphasis on large cities in development policy may also stem from the overwhelming focus of urban economic theory on city productivity (Duranton & Puga, 2004), which pays little attention to the aggregate impact of this productivity on the rest of the urban system. This is pertinent since, at the country level, the growth of productivity in certain cities may be a zero-sum game, highlighting the need to adopt aggregate measures, such as average city size, in empirical analysis (Frick & Rodríguez-Pose, 2016). In addition, the city size categories used in urban concentration literature have been far too crude. All too often, dichotomies have been drawn between urban and rural, which neglect the large and growing intermediate city populations. As will be argued in the next section, it is therefore increasingly important to adopt a more realistic treatment of urban systems that exist along a continuum of city size, to account for the swelling number of intermediate cities (Christiaensen & Kanbur, 2017). Set to absorb the brunt of future urban growth, development strategies must concentrate more on cities in the middle of the urban hierarchy and reconcile the development challenges faced by many countries across the world. As such, the distinction between large and intermediate cities will be paramount in effective policy design and analysis (Roberts, 2014).

5 | INTERMEDIATE CITIES AND ECONOMIC DEVELOPMENT

What can intermediate cities offer to generate greater levels of employment and promote economic development? Why, to boost economic development, should we focus more on creating the right ecosystems and conditions for intermediate cities to thrive? Whilst large urban agglomerations have dominated the literature on cities and economic development, a growing body of research is more and more highlighting the potential of smaller, intermediate cities and areas (e.g., Christiaensen & Kanbur, 2017; Dijkstra et al., 2013; Jedwab et al., 2015; Rodríguez-Pose & Fitjar, 2013). There is, however, still much to learn about the potential of intermediate cities. Since, according to the mainstream urban economic theories, economic growth in many countries is expected to increasingly derive from cities further up the urban hierarchy (OECD, 2011), there is a greater need to explore what role do intermediate cities play in this urban hierarchy and what is their potential in a rapidly changing world. Drawing on existing work, we develop three arguments – that intermediate cities offer optimal conditions for growth, that they provide an ideal scale to fight poverty and deprivation, and that they offer a better quality of life – to suggest that investing and creating the adequate conditions for economic activity to thrive in



intermediate cities is desirable for achieving not just greater but also a more balanced, integrated and sustainable economic development. The three arguments are as follows.

5.1 | Optimal conditions for growth

There is reason to believe that intermediate cities can offer an appropriate scale for economic growth that complements a vision dominated by large cities. Indeed, in many countries, intermediate or secondary cities can possibly balance better than many large cities the costs and benefits of urban growth, and thus can be adequately placed to drive economic growth (Frick & Rodríguez-Pose, 2016).

From an empirical standpoint, urban economists have long grappled with the notion of 'optimal city scale'. Whilst megalopolises and large cities benefit from the agglomeration effects of increased size, they are also plagued with inefficiencies and diseconomies of scale (Duranton, 2014; Overman & Venables, 2005). Large cities tend to be highly productive but at the same time necessitate large public investments to correct congestion costs, all of which raise the cost of economic activity. The general wisdom to date stands that the benefits of agglomeration outweigh the costs of density. With large cities such as London, Paris, New York and Tokyo dominating the global economy, there is abundant empirical evidence of the income and productivity advantages large cities enjoy.

Those advantages of agglomeration can, however, quickly unravel. This has been the case during the coronavirus disease 2019 (COVID-19) pandemic, when some of the very assets that make large cities thrive have quickly become weaknesses. The role of large cities as transport hubs has made them the perfect environment for the diffusion of the pandemic, while their sheer density and size have provided the mechanisms for mass contagion. It therefore comes as no surprise that some large and dense cities and regions, such as New York, Paris, London, Madrid (6.7 M) or Milan (6.1 M), have become the centres of the pandemic.

Moreover, there is a growing concern that the urban hierarchy is becoming detached from economic growth and development patterns. At the centre of this argument is the recognition of heterogeneity between the performance of large cities (Jedwab & Vollrath, 2015; Gollin et al., 2016). Urbanization in many parts of the world has increasingly been occurring at constant income levels, with particularly high urban growth rates among particularly poor places (Glaeser & Joshi-Ghani, 2013). The effect is that, especially in emerging and developing countries, megacities are emerging at unprecedented speeds, at a time where national development remains comparatively low and institutions are generally weak. This heterogeneity has important implications for economic development. Larger cities are more likely to need interventions to alleviate externalities, and in the Western world this has traditionally been possible through a combination of wealth and capable governments that have enabled some large cities to prosper (Glaeser, 2014). But increasingly some large agglomerations face a combination of severe problems, including adverse urban externalities, widespread poverty, and weak institutions (Rodríguez-Pose, 2020). Large cities therefore may have difficulties maintaining the adequate public capital stock needed to capture agglomeration economies (Christiaensen & Kanbur, 2017). Furthermore, weak governments, corrupt behaviour, limited expertise and fiscal resources mean that some large cities, especially in less-developed and emerging countries, are generally ill-equipped to design and implement effective urban policies to ensure appropriate public goods and services and handle the costs of rapid urbanization and high urban density. As such, megacities in many parts of the world face problems to adequately provide housing, infrastructure and public services. In brief, the rise of megacities does not necessarily always go hand in hand with greater overall economic development. Hence, without adequate planning or fiscal resources, the growth of large cities threatens to overshadow any agglomeration benefits and hamper any ability to contribute to national economic growth.

To this extent, intermediate cities can offer an appropriate scale from which to adequately manage urban diseconomies and maximize productivity. Since the effects of urban congestion, from pollution, high rents or traffic, are amplified with scale, they will generally not arise to the same extremes as in larger cities. Crucially, the solutions to



address diseconomies of scale are easier to implement in intermediate cities. Large urban agglomerations necessitate wider and more complex planning solutions to overcome bottlenecks. Whilst traffic congestion may be addressed through a better installation and coordination of traffic lights in an intermediate city, for example, policy-makers in large cities must grapple with far more complex and resource-intensive solutions, from the construction of entirely new metro systems through to sophisticated traffic monitoring systems (Gilbert, 1976).

5.2 | Intermediate cities are important for poverty reduction

For many countries, addressing poverty remains integral to future development prospects. A key question surrounding this is whether public investments should target large or smaller cities to minimize overall poverty (Christiaensen et al., 2018). Most development theories have argued that cities at the apex of the urban hierarchy are central to economic development and the reduction of poverty, but recent empirical evidence provides a strong case for the role of intermediate cities in addressing poverty and improving wellbeing.

It has long been argued that hierarchical urban structures are optimal, since smaller cities can form closer economic linkages, facilitate market access and offer greater cultural proximity and liveability than larger cities (e.g., Brutzkus, 1975). Small and intermediate cities may, therefore, fulfil several mechanisms in contributing towards enhanced development (Tacoli, 2004). Generally, however, city size theories have mostly remained unconcerned with the effects of city composition and intermediate cities on poverty (Christiaensen & Kanbur, 2017). Nonetheless, as the debate regarding large or small cities has grown in importance, the significant potential of intermediate cities in poverty reduction – in particular through their ability to garner balanced and sustainable ecosystems – is coming to light. There are several arguments in this respect.

First, intermediate cities play an important role as sites of opportunity. As more accessible migration destinations for rural and small-town workers and for workers from large cities seeking to improve their quality of life, the scale and environments of intermediate cities render them more effective at reducing poverty than larger cities. Rural-to-urban migration is a basic stylized fact and has important implications for poverty reduction. A central tenet of urban economics is that average urban incomes are higher than rural and small-town ones, with a rural-urban disparity in terms of income, poverty and service availability clearly marked within empirical estimates (Ferré et al., 2012; Ravallion et al., 2007). As rural and small-town populations face limited opportunities in their places of origin, migration to cities is widely associated with higher wages and reduced poverty. Hence, the nature and dimension of cities matters. The differential effects between wages and migration costs for migrants between large and smaller cities are less clear, however (Christiaensen & Kanbur, 2017). Put simply: will the rate of poverty reduction be greater or smaller if people move from rural areas and small towns to intermediate cities or large cities? Recent empirical estimates to unpick this relationship suggest that there are differentiated effects between intermediate and large cities. Using data from 51 countries, Christiaensen and Todo (2014) find there is an additional effect on poverty reduction when people move from rural areas into lower-tier towns and that this effect is greater than if this population were to move into larger agglomerations.

Underpinning this effect is the accessibility of intermediate cities to first-time migrants. Ingelaere et al. (2017) use qualitative analysis of migration patterns in Tanzania to understand the factors shaping migration decisions towards intermediate cities ahead of primary urban areas. Interviews with migrants highlight that intermediate cities are attractive migration destinations compared with large urban agglomerations, offering greater physical and cultural accessibility. While large capital cities are seen as the main areas of opportunity, smaller cities are arguably better placed to absorb future rural migrants as structural economic transitions occur. Finally, beyond the poverty impacts of migrants, new empirical evidence suggests that intermediate cities develop strong multiplier effects for economic development. Christiaensen et al. (2018) suggest that the creation of one additional formal job in Tanzania lifts 3.36 individuals from poverty in the largest city, Dar es Salaam (6.5 M), whereas the same additional job lifts 5.74 from poverty in an intermediate city. Thus, investment flowing into intermediate cities remains desirable for its



effects on economic development: their important position as destinations for rural and small-town migrants can reduce aggregate national poverty.

5.3 | Intermediate cities offer advantages in people, jobs and quality of life

The advantages of intermediate cities in attracting skilled labour and firms remain central to their potential to galvanize economic development. Intermediate cities in most parts of the world are desirable places to live and work, especially when compared with their larger counterparts. This, in turn, has important implications for their economic trajectories – it is increasingly recognized that factors such as liveability, affordability and socio-cultural amenities are key to the appeal of cities as places to settle (Roberts, 2014).

Numerous economic and social inefficiencies faced by megacities, such as traffic, pollution, higher levels of criminality, or safety, have implications for their quality of livelihoods. These diseconomies are sometimes compounded by poor institutions and inefficient urban administrations incapable of adequately handling the challenges of large metropolises (Glaeser, 2014; Glaeser & Joshi-Ghani, 2013). In some parts of the world, large cities have faced and face difficulties maintaining the adequate public capital stock needed to capture agglomeration economies (Christiaensen & Kanbur, 2017). Many large cities, despite their relative predominance over the economic activity of their respective countries, still confront significant socio-economic challenges and frequently remain relatively poor environments to live and work. This is marked, in particular, by high rates of urban poverty. Especially in poor countries, a pervasive presence of slums – as housing, infrastructure and other vital capital investments have failed to match the pace of population growth – renders many large cities crowded and uncompetitive (Lall et al., 2017). Indeed, three of the four cities ranked in the five least liveable cities globally are developing world megacities (Kinshasa (13.9 M), Lagos, Karachi (18.2 M) and Dhaka (20.3 M)) – only Damascus (3.9 M) came lower in this ranking (EIU, 2018).

Several rankings have aimed to estimate quality of life in cities. Regardless of the ranking, intermediate cities score overwhelmingly higher on indices of urban liveability (e.g., EIU, 2018; Mercer, 2020; Numbeo, 2020). In the Numbeo 2020 Quality of Life Index by City Ranking (Numbeo, 2020), it is relatively small cities in the developed world, such as Canberra (0.5 M), Raleigh (1.7 M), Adelaide (1.4 M), Wellington (0.2 M), Columbus (1.8 M), Madison (0.4 M) or Zurich (1.5 M), which came top in quality of life. Large cities in developed countries, by contrast, do not perform particularly well. London, for example, was in position 163 out of a total of 227 developed and developing world cities, between Quito (2.8 M), Ecuador, and Lviv (0.7 M), Ukraine. Paris fared even worse, in position 169, while other large European agglomerations did not score particularly better – Berlin (4.8 M) (82), Madrid (102), Barcelona (4.9 M) (130), Milan (161), Istanbul (176) and Moscow (194). Large cities in North America were also relatively down the quality-of-life ranking – Chicago (9.7 M) (103), Toronto (7.7 M) (119), Los Angeles (17.6 M) (122), New York (128) and Detroit (5.8 M) (149). Developing-world megalopolises occupied the bottom ten positions of the ranking – Caracas (3.8 M), Lagos, Tehran (15.5 M), Manila, Dhaka, Mumbai, Jakarta, Beijing (20 M), Ho Chi Minh (10.6 M) and Nairobi, in reverse order. Intermediate cities scored better in virtually every indicator, from pollution to traffic commuting time, including property-price-to-income ratio, cost of living, health care quality, safety, and purchasing power. The only exception was climate.

The Mercer 2019 Quality of Living City Ranking has a different set of cities at the top of its 2019 ranking of 231 world cities, but they share with the Numbeo ranking their dimension (Mercer, 2020). Vienna (2.2 M), which tops the ranking, together with its immediate followers – Zurich, Vancouver (2.9 M), Munich (2.3 M), Auckland (1.5 M), Düsseldorf (1 M), Frankfurt (3.3 M), Copenhagen (1.7 M), Geneva (0.6 M) and Basel (0.6 M) – are far smaller than other agglomerations further down the rankings, such as Paris (39), London (41), New York (44), Madrid (46), Chicago (49), Los Angeles (66), Istanbul (130) or Moscow (167).

The EU also surveyed between 2004 and 2015 the quality of life in European cities. The last survey at the time of writing, conducted in 2015, included a total of 79 cities and 4 ‘greater’ cities (Eurobarometer, 2016). The greatest level of overall satisfaction was achieved in Oslo (1.2 M), closely followed by Zurich, Aalborg (0.1 M), Vilnius (0.6 M)



and Belfast (0.6 M). The bottom of the rank was taken by generally larger cities, such as Istanbul (worst performer), Athens (3.4 M), Palermo (0.7 M) and Naples (4.2 M). This situation was reproduced in most subcategories of the survey, which included both perceptions about citizens' satisfaction with living in their city (public transport, health care, cultural and sports facilities, educational facilities, public spaces, and the like) as well as people's views about their city, environmental concerns and individuals' personal situation (Eurobarometer, 2016).

As the above rankings and surveys show, intermediate cities offer important advantages, becoming increasingly attractive destinations for those seeking a safer, more affordable location to raise children, with better schooling. Cities such as Aalborg in Denmark, Zurich or Geneva in Switzerland, Vienna in Austria, Vilnius in Lithuania, Malaga (0.8 M) in Spain or Braga (0.2 M) in Portugal, just to name a few, are fitting examples of what intermediate cities can offer in terms of quality of life. There is growing evidence that negative conditions are driving certain groups of people from large cities towards intermediate cities on the grounds of safety, affordability, amenities, or education and health services. Megacities, because of the unaffordability of the city centres, have forced often the less privileged to flee congested and expensive inner-city districts towards the outer fringes of the urban area or altogether new cities in search of more housing space and better amenities (Gilbert, 1993). This, however, condemns large numbers of them to long commutes in congested and often subpar public transport systems (Rodríguez-Pose & Storper, 2020). Increasingly, these commuting movements are going well beyond the functional areas of the mega-regions to intermediate cities that are neither too far from the largest agglomerations, nor so close as to be affected by the negative economic and social externalities of megacities. As some urban giants become increasingly choked by diseconomies, intermediate cities offer far more attractive scales for both businesses and families to settle, and shape local ecosystems conducive to economic activity.

Rather than simply a case of people and jobs fleeing big cities, intermediate cities are repositioning themselves as highly dynamic nodes of economic development. At the firm level, a more compact scale in intermediate cities promotes closer interaction with local political actors and civil society, which, coupled with the accumulation of deep, specialized worker pools, offers a highly attractive ecosystem for the establishment of offices. As cities increasingly bid for economic activity, intermediate cities can leverage their institutional proximity as a differentiator to attract firms and jobs. Equally, a number of intermediate cities have the advantage of serving as important political functions, such as Vilnius, Luxembourg (0.1 M), Ljubljana (0.3 M), Tallinn (0.4 M), Geneva or the Nordic capitals.

The economic specialization of intermediate cities is also closely linked to structural transformation and recovery. Many former intermediate declining cities have, especially in Europe, turned a corner through the implementation of innovative development strategies. These 'comeback' cities (Plöger, 2013), such as Turin (1.6 M), Bremen (1 M), Bilbao (0.9 M), Leipzig (0.7 M) or Belfast, have been able to provide a combination of strategies to attract the highly skilled, while addressing social inequalities and renewing formerly deteriorating neighbourhoods. They have simultaneously provided better leadership and improvements in governance (Plöger, 2013: 207–208). Many of these cities concentrate new technological and industrial developments in manufacturing, processing and resource extraction (ESPON, 2012; Roberts, 2014). Although many intermediate cities still suffer from limited investment and resource distribution – frequently due to the preferential treatment of larger cities (Roberts & Hohmann, 2014) – they offer considerable and rising potential. Cambridge (0.2 M) and Oxford (0.2 M) in the UK, or Eindhoven (0.3 M) in the Netherlands, are examples of growing technology, science and industrial hubs. Intermediate cities can therefore act as facilitators of labour mobility and job creation in the highest echelons of the employment ladder.

Of particular relevance is the growth of advanced, knowledge-based industrial hubs, which many intermediate cities seem well positioned to tap into. In an increasingly knowledge-based global economy, human capital remains of utmost importance. Factors that attract these knowledge workers to cities are therefore increasingly recognized in urban policy. It is often argued that quality of life and the presence of distinct cultural and leisure amenities are significant, and thus are important assets for cities (Florida, 2002; Glaeser et al., 2001). Increasingly, cities with the highest concentration of skilled knowledge workers are not necessarily the largest cities. Intermediate cities, such as



Seattle, Asheville (0.5 M), Santa Fe (0.2 M), and San Rafael (0.05 M) in the USA, Victoria (0.3 M) in Canada, Gothenburg (0.7 M) in Sweden, Lyon (2 M) in France, Cambridge and Oxford in the UK, Eindhoven or Maastricht (0.1 M) in the Netherlands, Ghent (0.4 M) in Belgium, or Ljubljana in Slovenia, have become vibrant technology, science, cultural and creative hubs. Science and creativity flourish in many intermediate cities, but also in small towns and peripheral areas, increasingly regarded as places for experimentation, risk-taking and innovation (Grabher, 2018; Rekers, 2012; Rodríguez-Pose & Lee, 2020).

However, these transformations are not confined to the developed world. Across emerging countries, many intermediate cities are being recognized as innovation and cultural hubs. Such is the case of Guanajuato (0.2 M), Piedras Negras (0.2 M), Ciudad del Carmen (0.2 M) or Saltillo (0.9 M) in Mexico, São José dos Campos (0.7 M), Campinas (3.3 M), Florianópolis (1 M), Blumenau (0.8 M) or Caixas do Sul (0.5 M) in Brasil (Endeavour, 2014), Petaling Jaya (0.4 M) in Malaysia, Quanzhou (1.2 M) or Nantong (2 M) in China, Madurai (1.8 M) in India, Rabat (2.1 M) in Morocco, Port Harcourt (2.4 M) in Nigeria, and Kumasi (3.1 M) in Ghana (Roberts, 2014). Often, these are closely linked to the presence of universities and the growth of triple-helix innovation models (Etzkowitz & Leydesdorff, 1995).

Intermediate cities are, of course, not immune to the costs of urbanization widely observed in large cities (Roberts, 2014). Armed with the right insights and policy support, however, there is significant potential to avoid many of the mistakes of larger metros and act faster to implement interventions, support sustainable future growth and encourage vital private investments. To this extent, a shift away from core urban areas into cities with a more humane dimension for the development of daily activity can significantly improve the general provision of public services and infrastructures within a more viable urban scale (European Commission, 2010).

6 | CONCLUSION

This paper makes the case for the potential of intermediate cities and posits that creating the right ecosystems and conditions for intermediate cities to thrive is vital for boosting national economic development. Until now, attention in urban economics – and therefore policy – has been mainly focused on large cities. Yet, it is becoming increasingly clear that there is a need for greater focus on the growing number of cities with populations between 300,000 and 5 million across the developed and developing world.

Central to this argument is the proliferation of new empirical evidence which challenges the prevailing view that large cities are key to economic success. A fresh wave of studies has illustrated that the growth of large cities does not necessarily go hand-in-hand with greater development prospects. Urbanization and the focus on large cities have not necessarily driven economic growth in the same way as was widely expected. Large cities have not always delivered the highest level of growth and, equally, do not always represent the best channels for reducing national poverty. Rather, often neglected parts of the urban system have been providing – and will continue to provide – significant economic dynamism that can address some of the growth and employment problems and bottlenecks that affect large parts of the world.

Several arguments have been developed in favour of renewed investment in, and policy attention to, the growing number of intermediate cities. Firstly, many intermediate cities offer optimal conditions for economic growth, by combining adequate amounts of agglomeration and density with a more humane dimension. Secondly, they provide considerable potential for addressing urban destitution and poverty: as important destinations for rural and small-town migrants, as sites of non-farm employment, and as catalysts for economic activity and modernization. To this extent, new empirical evidence highlights that investment into intermediate cities can have a greater positive impact potential on poverty reduction than the renewed investment in larger cities. Thirdly, intermediate cities can leverage considerable quality of life and business environment advantages to tap into new, dynamic industries. As such, intermediate cities can play a catalysing role in poverty reduction, but also in the structural transformation of regional economies towards modern industries.



Intermediate cities have considerable potential to grow at a fast rate and to tow the growth of the countries where they are located with them. However, their success will not come without help (Roberts, 2014). To maximize their potential, they must still overcome distinct challenges, ranging from knowledge through to resource gaps. This cannot be done in the current dominant landscape of policy neglect. Urban policy must catch up with the new wave of evidence and recognize the potential of intermediate cities as drivers of economic development. Crucially, this involves ensuring that urban policies do not remain restricted to megacities and large urban agglomerations, but also acknowledging that the challenges that affect intermediate cities are not necessarily homogeneous. They differ considerably according to the level of development of the country where the city is located and its position in the urban hierarchy. Hence, this would imply the pursuit of place-sensitive policies where development strategies are based on sound theory and empirical evidence, while remaining malleable enough to respond and adapt to the specific characteristics and challenges that exist locally (Iammarino et al., 2019). This does not, however, necessitate the abandonment of large cities. Without question, they play a significant role in any country's development prospects. Rather, complementing development policies for different tier cities and for small towns and rural areas will guarantee that the economic potential of cities, regions and nation states does not remain untapped and that the economic benefits linked to urbanization reach wider layers of the population.

ACKNOWLEDGMENTS

We are grateful to Tomaz Ponce Dentinho and to two anonymous reviewers for their useful suggestions and recommendations for the paper. Vicente Ruiz, from the OECD, challenged us to write the paper.

ORCID

Andrés Rodríguez-Pose  <https://orcid.org/0000-0002-8041-0856>

ENDNOTE

¹ All population data refer to urban agglomerations or equivalent and, for consistency, are collected from City population.de (2020), unless stated otherwise.

REFERENCES

- Ades, A. F., & Glaeser, E. L. (1995). Trade and circuses – Explaining urban giants. *Quarterly Journal of Economics*, 110(1), 195–227. <https://doi.org/10.2307/2118515>
- Berdegúe, J. A., Proctor, F. J., & Cazzuffi, C. (2014). *Inclusive Rural–Urban Linkages*. Santiago de Chile: RIMISP. http://www.rimisp.org/wp-content/files_mf/files_mf/1421159469/InclusiveRural%96Urban.pdf
- Brunon, S., & Nijkamp, P. (2018). The impact of a culturally diverse workforce on firms' revenues and productivity: An empirical investigation on Germany. *International Regional Science Review*, 41(1), 62–85. <https://doi.org/10.1177/0160017616642820>
- Brutzkus, E. (1975). Centralized versus decentralized pattern of urbanization in developing countries: An attempt to elucidate a guideline principle. *Economic Development and Cultural Change*, 23(4), 633–652. <https://doi.org/10.1086/450830>
- Cadena, A., Remes, J., Manyika, J., Dobbs, R., Roxburgh, C., Elstrodt, H. P., Chaia, A., & Restrepo, A. (2011). *Building globally competitive cities: The key to Latin American growth*. San Francisco: McKinsey Global Institute.
- Castells-Quintana, D. (2017). Malthus living in a slum: Urban concentration, infrastructure and economic growth. *Journal of Urban Economics*, 98, 158–173. <https://doi.org/10.1016/j.jue.2016.02.003>
- Christiaensen, L., De Weerd, J., & Kanbur, R. (2018). Decomposing the contribution of migration to poverty reduction: Methodology and application to Tanzania. *Applied Economics Letters*, 26(12), 978–982.
- Christiaensen, L., & Kanbur, R. (2017). Secondary towns and poverty reduction: Refocusing the urbanization agenda. *Annual Review of Resource Economics*, 9(1), 405–419.
- Christiaensen, L., & Todo, Y. (2014). Poverty reduction during the rural–urban transformation – The role of the missing middle. *World Development*, 63(1), 43–58. <https://doi.org/10.1016/j.worlddev.2013.10.002>
- Citypopulation.de. (2020). City population. <https://www.citypopulation.de/> (last accessed, 18/04/2020).
- Dijkstra, L., Garcilazo, E., & McCann, P. (2013). The economic performance of European cities and city regions: Myths and realities. *European Planning Studies*, 21(3), 334–354. <https://doi.org/10.1080/09654313.2012.716245>



- Dobbs, R., Smit, S., Remes, J., Manyika, J., Roxburgh, C., & Restrepo, A. (2011). *Urban world: Mapping the economic power of cities*. McKinsey Global Institute.
- Durantón, G. (2014). Growing through cities in developing countries. *World Bank Research Observer*, 30(1), 39–73.
- Durantón, G., & Puga, D. (2004). Micro-foundations of urban agglomeration economies. In J. Vernon Henderson & J. F. Thisse (Eds.), *Handbook of regional and urban economics* (pp. 2063–2117). Burlington: Elsevier.
- Economist Intelligence Unit (EIU). (2018). *The global Liveability index 2018*. The Economist.
- Endeavour. (2014). *Entrepreneurial cities index: Brazil 2014*. Endeavour Brasil.
- ESPON. (2012). *Second tier cities and territorial development in Europe. Performance, policies and prospects*. Liverpool: Liverpool John Moores University.
- Etzkowitz, H., & Leydesdorff, L. (1995). The triple helix – University–industry–government relations: A laboratory for knowledge based economic development. *EASST Review*, 14(1), 14–19.
- Eurobarometer. (2016). *Quality of life in European cities, 2015, Flash Eurobarometer 419*. Luxembourg: Publications Office of the European Union.
- European Commission. (2010). *Investing in Europe: Fifth cohesion report on economic, social and territorial cohesion*. Brussels: European Commission.
- Ferré, C., Ferreira, F. H., & Lanjouw, P. (2012). Is there a metropolitan bias? The relationship between poverty and city size in a selection of developing countries. *The World Bank Economic Review*, 26(3), 351–382.
- Florida, R. (2002). *The rise of the creative class*. New York: Basic Books.
- Fortune. (2018). Fortune Global 500. Accessed January 2019: <http://fortune.com/global500/>
- Frick, S., & Rodríguez-Pose, A. (2016). Average city size and economic growth. *Cambridge Journal of Regions, Economy and Society*, 9(2), 301–318. <https://doi.org/10.1093/cjres/rsw013>
- Frick, S., & Rodríguez-Pose, A. (2018a). Change in urban concentration and economic growth. *World Development*, 105, 156–170. <https://doi.org/10.1016/j.worlddev.2017.12.034>
- Frick, S., & Rodríguez-Pose, A. (2018b). Big or small cities? On city size and economic growth. *Growth and Change*, 49, 4–32. <https://doi.org/10.1111/grow.12232>
- Fritsch, M., & Wyrwich, M. (2021). Is innovation (increasingly) concentrated in large cities? An international comparison. *Research Policy*, 50(6), 104237. <https://doi.org/10.1016/j.respol.2021.104237>
- Ganau, R., & Rodríguez-Pose, A. (2021). Does urban concentration matter for changes in country economic performance? *Urban Studies*, 0042098021998927. <https://doi.org/10.1177/0042098021998927>
- Gilbert, A. (1976). The arguments for very large cities reconsidered. *Urban Studies*, 13(1), 27–34. <https://doi.org/10.1080/00420987620080031>
- Gilbert, A. (1993). Third world cities: The changing National Settlement System. *Urban Studies*, 30(4–5), 721–740. <https://doi.org/10.1080/00420989320081891>
- Glaeser, E. (2011). *Triumph of the City*. London: Penguin.
- Glaeser, E., & Joshi-Ghani, A. (2013). Rethinking cities: Toward shared prosperity. *World Bank-Economic Premise*, 126, 1–14.
- Glaeser, E., Kolko, J., & Saiz, A. (2001). Consumer city. *Journal of Economic Geography*, 1(1), 27–50. <https://doi.org/10.1093/jeg/1.1.27>
- Glaeser, E. L. (2014). A world of cities: The causes and consequences of urbanization in poorer countries. *Journal of the European Economic Association*, 12(5), 1154–1199. <https://doi.org/10.1111/jeea.12100>
- Glaeser, E. L., Kallal, H. D., Scheinkman, J. A., & Shleifer, A. (1992). Growth in cities. *Journal of Political Economy*, 100(6), 1126–1152. <https://doi.org/10.1086/261856>
- Gollin, D., Jedwab, R., & Vollrath, D. (2016). Urbanization with and without industrialization. *Journal of Economic Growth*, 21, 35–70. <https://doi.org/10.1007/s10887-015-9121-4>
- Grabher, G. (2018). Marginality as strategy: Leveraging peripherality for creativity. *Environment and Planning a: Economy and Space*, 50(1), 1785–1794. <https://doi.org/10.1177/0308518X18784021>
- Henderson, J. V. (1988). *Urban development: Theory, fact, and illusion*. New York: Oxford University Press.
- Iammarino, S., Rodríguez-Pose, A., & Storper, M. (2019). Regional inequality in Europe: Evidence, theory and policy implications. *Journal of Economic Geography*, 19(2), 273–298. <https://doi.org/10.1093/jeg/lby021>
- Ingelaere, B., Christiaensen, L., De Weerd, J., & Kanbur, R. (2017). Why secondary towns can be important for poverty reduction: A migrant's perspective. *Policy Research Working Paper; 8193*. World Bank, Washington, DC.
- Jedwab, R., Christiaensen, L., & Gindelsky, M. (2015). Demography, urbanization and development: Rural push, urban pull and ... urban push?. Policy Research Working Paper; No. 7333. World Bank, Washington, DC.
- Jedwab, R., & Vollrath, D. (2015). Urbanization without growth in historical perspective. *Explorations in Economic History*, 58, 1–21. <https://doi.org/10.1016/j.eeh.2015.09.002>
- Lall, S., Henderson, J. V., & Venables, A. (2017). *Africa's cities: Opening doors to the world*. Washington, DC: World Bank. <https://doi.org/10.1596/978-1-4648-1044-2>
- Leke, A., Lund, S., Roxburgh, C., & van Wamelen, A. (2010). *What's driving Africa's growth*. McKinsey Quarterly. (June)



- McCann, P., & Acs, Z. J. (2011). Globalization: Countries, cities and multinationals. *Regional Studies*, 45(1), 17–32. <https://doi.org/10.1080/00343404.2010.505915>
- Mercer. (2020). Quality of living city ranking. <https://mobilityexchange.mercer.com/Insights/quality-of-living-rankings> (last accessed 18 April 2020).
- Moretti, E. (2013). *The new geography of jobs*. New York: Mariner.
- Musterd, S., Murie, A., & Kesteloot, C. (2016). *Neighbourhoods of poverty*. London: Palgrave Macmillan.
- Numbeo. (2020). Quality of Life Index by City 2020. <https://www.numbeo.com/quality-of-life/rankings.jsp> (last accessed 16 April 2020).
- OECD. (2011). *Regions and innovation policy*. Paris: OECD. <https://doi.org/10.1787/97892264097803-en>
- Overman, H., & Venables, A. (2005). Cities in the developing world. *CEP Discussion Papers: 695*, Centre for Economic Performance, London School of Economics and Political Science
- Plöger, J. (2013). Comeback cities? Urban recovery approaches in European industrial cities. In C. Zimmermann (Ed.), *Industrial cities: History and future* (pp. 188–210). Frankfurt-on-Main: Campus Verlag.
- Ravallion, M., Chen, S., & Sangraula, P. (2007). New evidence on the urbanization of global poverty. *Population and Development Review*, 33, 667–701.
- Rekers, J. V. (2012). We're number two! Beta cities and the cultural economy. *Environment and Planning a*, 44(8), 1912–1929. <https://doi.org/10.1068/a44511>
- Roberts, B. (2014). *Managing systems of secondary cities*. Brussels: Cities Alliance/UNOPS.
- Roberts, B., & Hohmann, R. (2014). The systems of secondary cities: The neglected drivers urbanizing economies. *CIVIS Sharing Knowledge and Learning from Cities* No. 7.
- Rodríguez-Pose, A. (2020). Institutions and the fortunes of territories. *Regional Science Policy & Practice*, 12(3), 371–386. <https://doi.org/10.1111/rsp3.12277>
- Rodríguez-Pose, A., & Fitjar, R. D. (2013). Buzz, archipelago economies and the future of intermediate and peripheral areas in a spiky world. *European Planning Studies*, 21(3), 355–372. <https://doi.org/10.1080/09654313.2012.716246>
- Rodríguez-Pose, A., & Lee, N. (2020). Hipsters vs. geeks? Creative workers, STEM and innovation in US cities. *Cities*, 100, 102653.
- Rodríguez-Pose, A., & Storper, M. (2020). Housing, urban growth and inequalities: The limits to deregulation and upzoning in reducing economic and spatial inequality. *Urban Studies*, 57(2), 223–248. <https://doi.org/10.1177/0042098019859458>
- Romer, P. M. (1986). Increasing returns and long-run growth. *Journal of Political Economy*, 94(5), 1002–1037. <https://doi.org/10.1086/261420>
- Simon, H. (2009). *Hidden champions of the twenty-first century: The success strategies of unknown world market leaders*. Dordrecht: Springer. <https://doi.org/10.1007/978-0-387-98147-5>
- Tacoli, C. (2004). *The role of small and intermediate urban centres and market towns and the value of regional approaches to rural poverty reduction policy*. OECD: DAC POVNET.
- UNDP. (2016). *Human Development Report 2016. Human development for everyone*. New York: United Nations Development Programme. http://hdr.undp.org/sites/default/files/2016_human_development_report.pdf
- UN-Habitat. (2014). *The state of African cities 2014. Re-imagining sustainable urban transitions*. Nairobi: United Nations.
- UN-Habitat. (2016). *World cities report 2016: Urbanization and development – Emerging futures*. New York: United Nations.
- United Nations. (2018). World urbanization prospects: The 2018 revision, UN DESA: <http://esa.un.org/unpd/wup/>
- Venables, A. J. (2005). Spatial disparities in developing countries: Cities, regions, and international trade. *Journal of Economic Geography*, 5(1), 3–21. <https://doi.org/10.1093/jnlecg/lbh051>
- World Bank. (2009). *World development report 2009. Reshaping economic geography*. Washington, DC: World Bank.
- World Economic Forum. (2012). *Urban anthologies. Learning from our cities*. Geneva: World Economic Forum and MIT. 42*

How to cite this article: Rodríguez-Pose, A., & Griffiths, J. (2021). Developing intermediate cities. *Regional Science Policy & Practice*, 1–16. <https://doi.org/10.1111/rsp3.12421>