



Urbanization and economic growth: the arguments and evidence for Africa and Asia

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ABSTRACT The relationship between urbanization and development is a vital policy concern, especially in Africa and Asia. This paper reviews the arguments and evidence for whether rapid urban population growth can help to raise living standards. The main finding is that the development effects of urbanization and the magnitude of agglomeration economies are very variable. There is no simple linear relationship between urbanization and economic growth, or between city size and productivity. The potential of urbanization to promote growth is likely to depend on how conducive the infrastructure and institutional settings are. Removing barriers to rural–urban mobility may enable economic growth, but the benefits will be much larger with supportive policies, markets and infrastructure investments. Cities should use realistic population projections as the basis for investing in public infrastructure and implementing supportive land policies. Governments should seek out ways of enabling forms of urbanization that contribute to growth, poverty reduction and environmental sustainability, rather than encouraging (or discouraging) urbanization per se.

KEYWORDS Africa / agglomeration economies / Asia / economic growth / rural–urban migration / urban policy / urbanization

I. INTRODUCTION

The growing concentration of the world's population in major cities and towns in low- and middle-income countries means that the relationship between urbanization and development has become a major policy concern.⁽¹⁾ Almost coincidentally, the contribution of large cities to the prosperity of advanced economies has attracted the attention of leading North American and European economists, illustrated by the Nobel Prize awarded to Paul Krugman in 2008. Of course, the biggest practical challenges lie in Africa and Asia, where a vital question is whether rapid urban population growth can help to raise living standards and reduce poverty without degrading the ecosystems on which life depends. This paper focuses on the connection between urbanization and economic growth, but also refers to the implications for poverty and the environment.

Over the last decade, many influential global development organizations have shifted their perspective on this issue by advocating the view that urbanization supports growth and development and should be encouraged.⁽²⁾ For example:

1. Our use of the term "urbanization" generally follows the formal demographic definition, and refers to the increasing share of the population (and economic activity) located in urban areas. This is distinct from urban population growth, which reflects natural growth (births minus deaths) as well as urbanization. It is also distinct from the physical expansion of urban areas, which can reflect declining population density as well as urbanization and natural growth. Globally, the contribution of each of

"No country has grown to middle income without industrializing and urbanizing. None has grown to high income without vibrant cities. The rush to cities in developing countries seems chaotic, but it is necessary."⁽³⁾

Similarly:

"The city is one of the highest pinnacles of human creation ... Through agglomeration, cities have the power to innovate, generate wealth, enhance quality of life and accommodate more people within a smaller footprint at lower per capita resource use and emissions than any other settlement pattern."⁽⁴⁾

Recognition that urbanization has a role to play in economic and social progress is important, bearing in mind the general neglect of cities in the national and international discourse on development in recent decades.⁽⁵⁾ However, to avoid the pendulum of fashionable thinking simply swinging back towards rural development in a few years' time, it is vital that the supporting rationale and evidence base are robust. The current arguments put forward by these development organizations for urbanization being a driver of development, or for cities functioning as "engines of growth", are broad-brush and the supporting evidence provided is rather thin. The urbanization-growth nexus is often portrayed as automatic and inevitable, like some sort of universal law governing an immutable historical process. Insufficient attention is paid to the dynamics of urbanization and the nature of growth, including the different ways in which cities can support growth and the varied forms or composition of that growth. The conditions necessary for this to occur are also neglected, along with the consequences of growth for poor communities and the depletion of natural resources. Urbanization is often conflated with agglomeration, but they are not synonymous, especially if the fastest-growing areas are small cities and towns rather than major cities.

China is widely held up as an example of how urbanization can fuel industrialization and transform living standards.⁽⁶⁾ China passed the historic milestone of 50 per cent of its population living in cities in 2011, up from only 20 per cent in 1980. The unprecedented speed of urbanization has reflected the strength of jobs growth in cities. Average household incomes in Chinese cities are now almost three times higher than in rural areas, largely because of higher productivity. The state's commitment to invest heavily in urban infrastructure has helped to limit the socially disruptive effects of this massive population movement. It differs from India and many other developing countries, where urban congestion, water shortages, squalid living conditions and public health problems are rife. In the early 2000s, China spent 12.6 per cent of GDP on infrastructure – more than twice that of India.⁽⁷⁾ It was stated recently that: "For every pound Indian authorities invest in urban infrastructure, their Chinese counterparts spend seven."⁽⁸⁾

China's experience seems to bear out the broader argument developed in this paper that it is not urbanization per se that stimulates and sustains growth, but rather the form that urbanization takes and whether it provides an efficient enabling environment. This includes the manner in which the growing population and economic activity are accommodated within cities and the distribution of this growth across cities of different sizes and across the wider national territory. Public

these three factors to the expansion of urban land areas is similar in magnitude, judging from UN statistics on urbanization and urban growth (see United Nations Population Division (2012), *World Urbanization Prospects: The 2011 Revision*, POP/DB/WUP/Rev.2007, United Nations Department of Economic and Social Affairs, New York) and recent research on declining urban density (see Angel, Shlomo, Jason Parent, Daniel L Civco and David Potere (2010), "A planet of cities: urban land cover estimates and projections for all countries, 2000–2050", Working Paper, Lincoln Institute of Land Policy, Cambridge, MA, 103 pages. The degree to which the population is concentrated in a few large cities or spread across a range of cities is a separate but related issue that we also discuss in the paper.

2. OECD (2006), *Competitive Cities in a Global Economy*, OECD, Paris, 446 pages; also UN-Habitat (2008), *The State of African Cities 2008: A Framework for Addressing Urban Challenges in Africa*, United Nations Human Settlements Programme, Nairobi, 206 pages; UN-Habitat (2010), *State of the World's Cities: Bridging the Urban Divide*, Earthscan/James and James, London, 224 pages; UNFPA (2007), *State of the World Population 2007: Unleashing the Potential of Urban Growth*, United Nations Population Fund, New York, 108 pages; and World Bank (2009), *World Development Report 2009: Reshaping Economic Geography*, The World Bank, Washington DC, 383 pages.

3. See reference 2, World Bank (2009), page 24.

4. Robinson, Blake and Mark Swilling (2012), *Urban Patterns for a Green Economy: Optimizing Infrastructure*, United Nations Human Settlements Programme (UN-Habitat), Nairobi, page iii.

5. Beall, Jo and Sean Fox (2009), *Cities and Development*, Routledge, Abingdon, 268 pages.

6. Ravallion, Martin (2009), "Are there lessons for Africa from China's success against poverty?", *World Development* Vol 37, No 2, pages 303–313; also see reference 2, World Bank (2009).

7. Bardhan, Pranab K (2010), *Awakening Giants, Feet of Clay: Assessing the Economic Rise of China and India*, Princeton University Press, Princeton, NJ, 172 pages.

8. *The Observer* (2012), "How the rise of the megacity is changing the way we live", 22 January, accessible at www.guardian.co.uk.

9. Duranton, Gilles and Diego Puga (2004), "Microfoundations of urban agglomeration economies", in J Vernon Henderson and Jacques François Thisse (editors), *Handbook of Regional and Urban Economics: Volume 4, Cities and Geography*, Elsevier North Holland, Amsterdam, pages 2063–2117; also Storper, Michael (2010), "Agglomeration, trade and spatial development: bringing dynamics back in", *Journal of Regional Science* Vol 50, No 1, pages 313–342.

10. Buck, Nick, Ian Gordon, Alan Harding and Ivan Turok (editors) (2005), *Changing Cities: Re-thinking Urban Competitiveness, Cohesion and Governance*, Palgrave Macmillan, London, 317 pages; also Scott, Allen John (2006), *Geography and Economy: Three Lectures*, Clarendon Press, Oxford, 192 pages.

11. Hall, Peter Mar (1998), *Cities in Civilization: Culture, Innovation and Urban Order*,

investment in infrastructure and the built environment can play a crucial role in shaping these patterns, and therefore in influencing whether or not urbanization is functional for development. This will also influence the impact of urbanization on poverty and the environment.

II. THE THEORY OF AGGLOMERATION ECONOMICS

Two concepts underpin our understanding of the advantages of economic concentration – the *division of labour* and *economies of scale*. The former explains the gains for productivity, and therefore growth, from specialization. Firms organize themselves around particular products or tasks, which yields efficiencies and enhanced skills. Specialization also applies at the city level, meaning there are benefits of focusing on a function, or group of functions, for which places inherit or build a distinct advantage. Specialization becomes more important as external trade grows and competition intensifies.

Economies of scale have two aspects. *Internal economies of scale* are internal to the firm and relate to the lower unit costs or efficiencies that result from larger-scale production. *External economies of scale* (or "*agglomeration economies*") are the benefits firms obtain from being close to other firms in order to reduce transaction costs (such as transport and communication) and to gain from network effects, such as shared information. The bigger the network, the more knowledge and intelligence are available to learn from. Agglomeration economies include proximity to a large labour pool, suppliers, customers and competitors within the same industry (*localization economies*), and firms in other industries (*urbanization economies*).

These advantages can be summed up as three broad functions: matching, sharing and learning.⁽⁹⁾ First, cities help firms to *match* their unique requirements for labour, material inputs and premises better than towns, because markets are larger and there is more choice available. A bigger pool of providers also lowers costs and improves variety through competition and specialization. In volatile market conditions there is a premium on being adaptable, and companies tend to be leaner, more focused on core competences, and more reliant on buying-in goods and services than in-house production.⁽¹⁰⁾ Agglomerations assist firms to "mix and match" their resources more easily.

Second, cities afford firms access to a wider range of *shared services* and infrastructure because of the scale of activity. Cities offer better external connectivity to customers and suppliers through more frequent transport links to more destinations and more efficient logistics systems to handle imports and exports. They tend to have higher-capacity telecommunications systems for electronic connectivity and marketing. There is more extensive professional expertise, financial know-how and specialized research available to help companies stay up-to-date with changes in technology.

Third, firms gain from the superior flow of information in cities, which promotes more *learning and innovation*, and results in more valuable products and processes.⁽¹¹⁾ Proximity allows face-to-face communication and sharing of complex ideas between companies and support organizations.⁽¹²⁾ It enables people and firms to compare, compete and collaborate, which can establish a self-reinforcing virtuous circle

that spurs creativity, attracts mobile capital and talent, and generates growth from within. These “dynamic” advantages become increasingly significant over time because they are cumulative, unlike the one-off or “static” advantages of lower production and transaction costs.

Economies of scale also apply to public infrastructure. It is more efficient to provide hospitals, sewage treatment facilities and universities in large cities than in dispersed settlements, where densities are low and distances are large.⁽¹³⁾ Similarly, urban infrastructure projects generate greater positive externalities in cities than in towns because they increase the productive capacity of households (through improved health and life expectancy) and the effective labour supply, which enable higher economic growth. Kalarickal⁽¹⁴⁾ provides examples of how public investment in low-cost housing, sanitation, drinking water, electricity and access roads in informal settlements in Africa helped to reduce public health problems and mortality associated with overcrowding. He argues that governments must look beyond individual projects when assessing their costs and benefits because of the disproportionate gains associated with urban investments.⁽¹⁵⁾

The existence of agglomeration economies does not mean that urbanization will necessarily cause economic output to increase. The benefits of concentration can be offset by rising congestion, overcrowding, overloaded infrastructure, pressure on ecosystems (such as water courses and air quality), higher costs of living and higher labour and property costs in cities. These negative externalities tend to increase as cities expand, especially if urban development is haphazard and there is insufficient public investment to maintain and expand essential infrastructure. Dysfunctional systems, gridlock, power cuts and insecure water supplies increase business costs, reduce productivity and deter private investment. The balance between the agglomeration economies and diseconomies may have an important influence on whether city economies continue to grow, stagnate or begin to decline.

The advantages of agglomeration also vary across sectors of the economy, with implications for the relationship between urbanization and growth. Economic success generally involves a progressive shift out of agriculture, even as agricultural productivity grows, and the diversion of resources towards industrial and service sectors. Agriculture is more land intensive and gains from being dispersed across the countryside, while industries and services benefit from concentration. This helps to explain why urbanization is quite closely related to the share of a country's GDP in industry and services.⁽¹⁶⁾ It does not in itself imply that faster urbanization will lead to accelerated economic growth. Rather, it suggests a sort of equilibrium or mutually dependent relationship, wherein urbanization helps to sustain growth but could be counter-productive if it outpaces economic restructuring and makes it difficult to absorb the surplus urban labour force.

Just as important from a policy perspective, the benefits of agglomeration depend on specific investments being made by local and national governments to improve how cities function. Governments have a big influence on which cities receive favourable treatment.⁽¹⁷⁾ There is little point in building new roads if they worsen congestion elsewhere in the city, or opening sewage treatment works or power stations if they discharge effluent and pollution in ways that discourage further investment in the city. The gains of agglomeration also depend on the

Weidenfeld and Nicolson, London, 1169 pages; also Jacobs, Jane (1969), *The Economy of Cities*, Random House, New York, 288 pages; Jacobs, Jane (1984), *Cities and the Wealth of Nations: Principles of Economic Life*, Random House, New York, 257 pages; and Storper, Michael and Anthony J Venables (2004), “Buzz: face-to-face contact and the urban economy”, *Journal of Economic Geography* Vol 4, No 4, pages 351–370.

12. Cooke, Philip and Kevin Morgan (1998), *The Associational Economy: Firms, Regions and Innovation*, Oxford University Press, Oxford, 247 pages; also see reference 10, Scott (2006); and Storper, Michael and Michael Manville (2006), “Behaviour, preferences and cities: urban theory and urban resurgence”, *Urban Studies* Vol 43, No 8, pages 1247–1274.

13. Martine, George, Gordon McGranahan, Mark Montgomery and Rogelio Fernandes-Castilla (editors) (2008), *The New Global Frontier: Urbanization, Poverty and Environment in the 21st Century*, Earthscan, London, 386 pages; also see reference 2, UNFPA (2007).

14. Kalarickal, Jerry (2007), “Urban investments and rates of return: assessing MCC's approach to project evaluation”, International Housing Coalition, Washington, 28 pages.

15. See also Bettencourt, Luis and Geoffrey West (2010), “A unified theory of urban living”, *Nature* Vol 467, No 7318, pages 912–913.

16. Satterthwaite, David (2007), “The transition to a predominantly urban world and its underpinnings”, Human Settlements Working Paper Series, Urban Change 4, IIED, London, pages 28–31.

17. Henderson, J Vernon (2010), “Cities and development”, *Journal of Regional Science* Vol 50, No 1, pages 515–540.

mobility of enterprises and workers to productive locations to facilitate matching, sharing and learning. The agglomeration literature has tended to assume that land and housing markets function smoothly and local authorities are responsive to market failures, so that people and firms can easily relocate and suitable land and infrastructure will be provided to accommodate them. This is far from straightforward in many developed as well as developing countries, because all sorts of other factors are also at work.

Finally, urbanization implies a decline in the share of rural dwellers, and not just more urban dwellers. This may be caused by a rise in rural productivity, or it may require such a rise. Where rural overpopulation is a problem, urbanization can assist. Urbanization can also reduce the economic distance between rural producers and their markets by improving the connecting infrastructure.⁽¹⁸⁾ Not all forms of urbanization will have the same impacts on rural productivity and incomes. Much will depend on how many cities are expanding, whether they are spatially concentrated or dispersed across different regions, what activities they undertake and what sort of infrastructure they invest in.

III. MEASURING THE RELATIONSHIP BETWEEN URBANIZATION AND GROWTH

It is difficult to disentangle and measure the effects of agglomeration because of their complexity and feedback effects. The benefits of economic concentration are partly absorbed by higher land and labour costs and offset by increased congestion. Consequently, the effects may not be readily apparent in aggregate economic indicators such as output, employment or average earnings. These variables are influenced by many other factors as well, such as the city's industrial structure and occupational composition. The effects may not be apparent at the scale of city administrative units, for which spatial data is conventionally available, because of their openness and leakage of resources across boundaries. Government financial transfers between localities can also mask the underlying economic processes, particularly when they are specifically designed to redistribute from stronger to weaker local economies. There are additional complications of timing in assessing the dynamic effects of agglomeration.

From the perspective of economic growth, the key outcome of agglomeration that should be measured is productivity. This is the single most important determinant of growth in economic output and income. It reflects the market value of local goods and services and the efficiency with which they are produced. Unfortunately, statistics on productivity tend to be unreliable at the local level. All sorts of other devices and indicators have been used instead to analyze agglomeration advantages.

One of the simplest is to compare the urbanization levels of individual countries with some measure of national economic output, average income or social development, in order to test for a statistical association between urbanization and development. Many results suggest that there is a broad empirical regularity – highly urbanized countries tend to be more prosperous.⁽¹⁹⁾ Henderson⁽²⁰⁾ found a strong correlation ($R^2 = 0.57$) between the proportion urbanized and Gross National Income per capita in 2004 for countries around the world. He argued that the correlation

18. Dorosh, Paul and James Thurlow (2012a), "Agglomeration, growth and regional equity: an analysis of agriculture- versus urban-led development in Uganda", *Journal of African Economies* Vol 21, No 1, pages 94–123.

19. See reference 2, UN-Habitat (2010).

20. See reference 17.

would be even stronger if there were fewer international differences in the way “urban” is defined. Yet the spread of observations around the trend line is always very wide, indicating that other factors are also involved. In addition, the discovery of a statistical association does not of course constitute evidence of a causal connection. Urbanization may be as much a consequence of economic development as a cause, and there may be different levels of urbanization suitable to different economies.

Some other independent processes may also contribute to both urbanization and higher levels of development in cities. The concentration of political power is an obvious example, resulting in “rent seeking” rather than productive activity, as people and firms seek preferential access to political elites. The outcomes could include more public sector jobs and higher wages in cities, plus higher levels of professional services, construction, embassies, media and consultants seeking access to government contracts and lobbying over legislation. Bekker and Therborn argue that this has been the dominant factor in the growth of many capital cities in Africa: “Proximity to the centre of patronage and redistribution, rather than economic development, has driven the explosive growth of African capitals since independence.”⁽²¹⁾ Glaeser makes a further point about the size distribution of cities: “The more centralized a nation’s government, the larger its capital city, because people are attracted to power as ants are to picnics.”⁽²²⁾

A series of other studies involving correlations between some measure of agglomeration (such as city size or density) and some measure of economic development (such as average income or growth in output) have found that no relationship exists (e.g. studies summarized in Martin⁽²³⁾). Leading economic geographers acknowledge that the present understanding of the dynamics of agglomeration and the strength of the cause–effect mechanisms remains quite limited, despite considerable theoretical development. According to Storper, for example:

“All in all, work on agglomeration has progressed considerably in the NEG [New Economic Geography], urban economics and regional science. But it remains far from an adequate causal account of the dynamics of agglomeration and de-agglomeration ... Deciphering the causes of agglomeration will ultimately require a much better understanding of the complex interdependencies between agents that lead them to congregate together.”⁽²⁴⁾

According to Garretson and Martin, serious weaknesses in the main theories of agglomeration arise because they “... embody crude conceptions of geography and history.”⁽²⁵⁾ One of the consequences is that they are unable to explain differences in the strength and nature of agglomeration effects in different places and at different points in time. Despite being one of the leading proponents of formal economic models based on many simplifying assumptions, Glaeser recognizes that: “Not only is there no one formula toward urban eminence, but also the sources of success are often highly nation specific.”⁽²⁶⁾

With the focus of economic research on the relationship between cities/urbanization and productivity/growth, there has been little systematic analysis of the varied forms or composition of urban economic growth. In particular, the problems of narrow, unequal and exclusive urban growth have not been examined closely. This gap is a particular concern in Africa, given the recent revival of many national economies

21. Bekker, S B and Göran Therborn (2012), *Capital Cities in Africa: Power and Powerlessness*, HSRC Press, Cape Town, South Africa, page 93.

22. Glaeser, Edward L (2011), *Triumph of the City: How our Greatest Invention Makes us Richer, Smarter, Greener, Healthier and Happier*, Macmillan, London, page 225; also see Overman, Henry G and Anthony J Venables (2010), “Evolving city systems”, in Jo Beall, Basudeb Guha-Khasnobis and S M Ravi Kanbur, (editors), *Urbanization and Development: Multidisciplinary Perspectives*, Oxford University Press, Oxford, pages 103–123. For a critical interpretation of this view and a restatement of the economic logic of urbanization, see Satterthwaite, David (2010), “Urban myths and the mis-use of data that underpin them”, in Jo Beall, Basudeb Guha-Khasnobis and S M Ravi Kanbur (editors), *Urbanization and Development: Multidisciplinary Perspectives*, Oxford University Press, Oxford, pages 83–102.

23. Martin, Ron (2008), “National growth versus spatial equality? A cautionary note on the new ‘trade-off’ thinking in regional policy discourse”, *Regional Science Policy and Practice* Vol 1, No 1, pages 3–13.

24. See reference 9, Storper (2010), page 332.

25. Garretson, Harry and Ron Martin (2010), “Rethinking (new) economic geography models: taking geography and history more seriously”, *Spatial Economic Analysis* Vol 5, No 2, page 30.

26. See reference 22, Glaeser (2011), page 225.

27. Economic Commission for Africa (2012), *Unleashing Africa's Potential as a Pole of Growth: Economic Report on Africa*, ECA, Addis Ababa, 186 pages; also IMF (2011), "World economic and financial surveys: regional economic outlook: sub-Saharan Africa", International Monetary Fund, Washington DC, 120 pages; and World Bank (2011), "Africa's future and the World Bank's support to it", The World Bank, Washington DC, 46 pages.

28. UNCTAD (2011), "Economic development in Africa: fostering industrial development in Africa in the new global environment", United Nations Conference on Trade and Development, Geneva, 135 pages.

29. Abbott, John (2012), *Green Infrastructure for Sustainable Urban Development in Africa*, Earthscan, Abingdon, 500 pages; also see reference 4.

30. Jabareen, Y R (2006), "Sustainable urban forms – their typologies, models and concepts", *Journal of Planning Education and Research* Vol 26, No 1, pages 38–52.

31. See Ciccone, A (2002), "Agglomeration effects in Europe", *European Economic Review* Vol 46, No 2, pages 213–227; also see reference 9, Duranton and Puga (2004); and Eberts, R W and D P McMillen (1999), "Agglomeration economies and urban public infrastructure", in P Cheshire and E Mills (editors), *Handbook of Regional and Urban Economics, Volume 3: Applied Urban Economics*, Elsevier North Holland, Amsterdam, pages 1455–1495.

32. Rosenthal, Stuart S and William C Strange (2004), "Evidence on the nature and sources of agglomeration economies", in J Vernon Henderson and Jacques François Thisse (editors), *Handbook of Regional and*

based on booming commodity exports.⁽²⁷⁾ The imperative to stimulate growth of any kind has been replaced to some extent by the need to diversify and broaden the growth trajectory in order to increase the impact on jobs, incomes and poverty.⁽²⁸⁾ Cities could be a key part of this agenda by providing the enabling environments for industrialization through essential infrastructure, skills, technical support, investment and responsive governance.

Another area of neglect has been the implications of urbanization for ecological systems and the use of natural resources. In the context of climate change, volatile food and energy prices, and global pressures to cut carbon emissions, it is vital to improve understanding of the environmental consequences of fast-growing cities. At first sight, these concerns should reinforce the case for concentrated rather than dispersed development, including localized production of energy, food, water, building materials and many other goods and resources. This will reduce transportation, economize on the use of land and improve the efficiency of resource use.⁽²⁹⁾ As with economic growth, however, there is some debate about the environmental costs and benefits of urbanization. Much is bound to depend on the form of urban development, including the issues of compactness, mixed land uses, public transport, and design for energy saving and recycling waste, water and other resources.⁽³⁰⁾

IV. EVIDENCE OF AGGLOMERATION ECONOMIES FROM THE GLOBAL NORTH

A range of more sophisticated econometric studies in the United States and Europe have been carried out in recent years in order to estimate the effects of agglomeration. The emphasis has been on cities of different sizes rather than urbanization per se. They use different statistical variables, units of analysis and measurement techniques, and their findings are unsurprisingly diverse. Many of them conclude that cities do offer measurable economic advantages, although they are not as substantial or widespread as often suggested by agglomeration theory or by policy proponents.⁽³¹⁾

A useful summary of the evidence concluded that the elasticity of city productivity with respect to city size is somewhere in the range 0.03–0.08.⁽³²⁾ This means that doubling city size increases productivity by 3–8 per cent. Put differently, for an increase of 25 per cent in a city's population, the output per worker (and consequently income) rises by 1–2 per cent. Studies based on individual earnings data find somewhat smaller, although still significant, impacts of agglomeration in big cities.⁽³³⁾ Several other studies suggest that the impacts are larger for cities that specialize in particular industries, indicating that localization economies may be stronger than urbanization economies.⁽³⁴⁾ They found that the elasticity of productivity ranged widely between 0.01 and 0.20, although most were under 0.10 (Table 1). This is modest rather than substantial. The impact of other drivers of national economic growth, such as trade, technical change and investment in physical and human capital, are likely to be more important.⁽³⁵⁾

The study by Rice et al.⁽³⁶⁾ also measured the rate at which the gains from proximity diminish with distance from the core city. They found that the advantages are greatest within 40 minutes driving time

TABLE 1
Estimates of agglomeration economies in the North

Author	Unit of analysis	Independent variable	Elasticity
Aaaberg (1973)	Swedish cities	City size (population)	0.02
Shefer (1973)	US MSAs ⁽¹⁾	City size (population)	0.20
Sveikauskas (1975)	US MSAs	City size (population)	0.06
Kawashima (1975)	US MSAs	City size (population)	0.20
Fogarty and Garofalo (1978)	US MSAs	City size (population)	0.10
Moomaw (1981)	US MSAs	City size (population)	0.03
Moomaw (1983)	US MSAs	City size (population)	0.05
Moomaw (1985)	US MSAs	City size (population)	0.07
Nakamura (1985)	Japanese cities	City size (population)	0.03
Tabuchi (1986)	Japanese cities	City size (population)	0.04
Louri (1988)	Greek regions	City size (population)	0.05
Sveikauskas et al. (1988)	US MSAs	City size (population)	0.01
Nakamura (1985)	Japanese cities	Industry size (employment)	0.05
Henderson (1986)	Brazilian cities	Industry size (employment)	0.11
Henderson (1986)	US MSAs	Industry size (employment)	0.19
Henderson (2003)	US MSAs	Industry size (number of plants)	0.03
Ciccone and Hall (1996)	US states	Employment density	0.06
Ciccone (2002)	EU regions	Employment density	0.05
Rice et al. (2006)	Britain sub-regions	Economically active population	0.05
Fingleton (2003)	British cities	Employment density	0.02

NOTE: ⁽¹⁾ MSA = Metropolitan Statistical Area

SOURCE: Based on Graham, Daniel J (2007), "Agglomeration economies and transport investment", Discussion Paper No 2007-11, OECD/ITF Joint Transport Research Centre, Paris, 23 pages; this includes the various references except for Fingleton (2003), which has been added: see Fingleton, Bernard (2003), "Increasing returns: evidence from local wage rates in Great Britain", *Oxford Economic Papers* Vol 55, No 4, pages 716–739.

of the central city, tapering off quite sharply thereafter and having little or no effect beyond about 80 minutes. The agglomeration effects are four times stronger 30 minutes away than 60 minutes away. This finding has important implications for urban form and investment in infrastructure. It suggests that dispersed patterns of urban development undermine productivity and growth by lengthening commuting times and opportunities for face-to-face interactions. It also justifies transport improvements to reduce travel times and traffic congestion in the largest cities. This was the main reason why a major UK government report concluded that the top priority for national transport investment was Greater London.⁽³⁷⁾ It challenged the fashionable idea of connecting different cities across the country through high speed rail in favour of making mobility across London more efficient.

Urban Economics: Volume 4: Cities and Geography, Elsevier North Holland, Amsterdam, pages 2119–2172.

33. Summarized in Rice, Patricia, Anthony J Venables and Eleonora Patacchini (2006), "Spatial determinants of productivity: analysis for the regions of Great Britain", *Regional Science and Urban Economics* Vol 36, No 6, pages 727–752.

34. Summarized in Graham, Daniel J (2007), "Agglomeration economies and transport

investment", Discussion Paper No 2007–11, OECD/ITF Joint Transport Research Centre, Paris, 23 pages; also Graham, Daniel J (2009), "Identifying urbanization and localization externalities in manufacturing and service industries", *Papers in Regional Science* Vol 88, No 1, pages 63–84.

35. See reference 18.

36. See reference 33.

37. Eddington, Rod (2006), "The Eddington transport study", Department of Transport, London, UK, 64 pages.

38. See reference 34, Graham (2009).

39. Hall, Peter Geoffrey and Kathy Pain (2006), *The Polycentric Metropolis: Learning from Mega-city Regions in Europe*, Earthscan, London, 228 pages.

40. See reference 23, page 10.

41. Dijkstra, Lewis, Enrique Garcilazo and Philip McCann (2013), "The economic performance of European cities and city regions: myths and realities", *European Planning Studies* Vol 21, No 3, pages 345 and 347–349.

42. Harris, Richard and John Moffat (2012), "Is productivity higher in British cities?", *Journal of Regional Science* Vol 52, No 5, page 777.

43. See reference 22, Overman and Venables (2010), page 104.

Another recent UK study disaggregated the effects of agglomeration for different industries and found somewhat larger effects, with the elasticity of productivity varying between 0.07 for manufacturing and 0.19 for services.⁽³⁸⁾ The effects were small or insignificant for non-tradeable services such as retailing, real estate, postal services and public services, which tend to locate close to consumers. The biggest effects of all were for financial services and professional services such as management consultants. This chimes with recent qualitative research across eight European countries on high order business services (lawyers, accountants, marketing, insurance companies, engineering consultants and designers).⁽³⁹⁾ They found strong tendencies for these top of the food chain functions to concentrate their activities within each country's largest city.

Summing up, econometric studies have yielded diverse findings for the magnitude of agglomeration economies. Some of this is bound to be attributable to methodological differences and varied national circumstances. Whatever the reasons, the weight of evidence is not substantial enough to justify popular assertions that cities are "engines of growth". Writing in a European context, Martin concludes that: "*We simply do not know enough ... to justify yet further concentration of economic activity in already congested and overheated regions and agglomerations.*"⁽⁴⁰⁾ Another recent European study concurs that:

"Many of the standard textbook arguments no longer hold in many parts of Europe ... large cities no longer play the driving role ... a policy just focusing on large urban areas in the EU will likely miss its target in terms of maximizing aggregate growth ... size is not a good predictor of growth."⁽⁴¹⁾

A recent UK study also raised doubts about the special advantages of cities: "*There is no overwhelming evidence ... in support of British cities being the ideal locations for encouraging growth.*"⁽⁴²⁾

One concern is the level of aggregation. Most previous studies are based on city level data, which may be too highly aggregated to reveal the way agglomeration economies operate. These are essentially about the interactions between individual firms, workers and supporting institutions. More disaggregated analysis based on data at the level of industries, firms and small areas might reflect the underlying processes more clearly. They might also identify the industrial and geographical scope of agglomeration economies more accurately, including the significance of the spatial structure of cities and role of efficient infrastructure. Agglomeration effects should also not be examined in isolation of other factors affecting productivity and development, such as the industrial and occupational structure, level of technology and skills, available land supply, and internal and external connectivity. Some of these forces are likely to reinforce each other, with successful cities emerging as the sum of the parts.

V. EVIDENCE FROM ASIA

A smaller body of econometric research exists on agglomeration in developing countries of the global South, particularly Asia. This has been usefully summarized by Overman and Venables, who note that "*... the developing country literature remains thin.*"⁽⁴³⁾ The main findings are shown

TABLE 2
Analyses of agglomeration economies in the South

Country	Author (date)	Main conclusions
China	Chen (1996)	Localization economies important for the two industries studied
India	Shukla (1996)	Urbanization stronger than localization economies in 11 out of 13 industries
India	Mitra (2000)	Urbanization economies important in 11 out of 17 industries
India	Lall et al. (2003)	Urbanization economies important in eight industries; localization diseconomies
India	Lall et al. (2004)	No localization or urbanization economies
Indonesia	Henderson and Kuncoro (1996)	Localization economies in three industries; urbanization economies in three industries
Korea	Lee and Zang (1998)	Localization not urbanization economies
Korea	Henderson et al. (2001)	Localization economies in three industries; urbanization economies in one industry

SOURCE: Overman, Henry G and Anthony J Venables (2010), "Evolving city systems", in Jo Beall, Basudeb Guha-Khasnobis and S M Ravi Kanbur (editors), *Urbanization and Development: Multidisciplinary Perspectives*, Oxford University Press, Oxford, pages 103–123.

in Table 2. They draw particular attention to the relative importance of localization and urbanization economies rather than precise measures of the relationship between city size and productivity. There have been no econometric studies of this kind in Africa to our knowledge.

The picture that emerges is very mixed. In some studies, the industry-specific externalities seem to be more important than the cross-cutting externalities, but in others the reverse is true. Few of the studies examined service sectors. Case studies of particular industries confirmed that localized concentrations of specific types of firms offered advantages. These came about through the exchange of goods, information and people. An important finding for policy purposes was that informal enterprises can perform complementary functions to formal companies – they do not simply add to local congestion and drive up urban costs. Overman and Venables' overall conclusion was that: "*There are substantial productivity advantages to urban centres and, as such, the development of these centres is a key part of countries' economic growth.*"⁽⁴⁴⁾

44. See reference 22, Overman and Venables (2010), page 114.

VI. EVIDENCE FROM AFRICA

Although there have been no similar studies of agglomeration in Africa, there have been other attempts to measure the link between African urbanization and development. There have also been comparisons with other continents. Many of their findings have been contradictory. To our knowledge, four studies have found no relationship between urbanization and development in Africa, while three have found some form of connection.

A substantial study of the relationship between urbanization and poverty based on 90 developing countries around the world found that

urbanization was widely associated with a reduction in poverty, because it was related to stronger economic growth:

“The urbanization process has played a quantitatively important positive role in overall poverty reduction, by providing new opportunities to rural out-migrants (some of whom escape poverty in the process) and through the second-round impact of urbanization on the living standards of those who remain in rural areas.”⁽⁴⁵⁾

Yet sub-Saharan Africa was an exception:

“The pattern of falling overall poverty with urbanization is far less evident in sub-Saharan Africa, where the population (including the poor) has been urbanizing, yet with little reduction in aggregate poverty.”⁽⁴⁶⁾

An earlier international study concluded that: “*There is generally an unequivocal [positive] correlation between urbanization and economic development and growth, but in Africa this appears not to apply.*”⁽⁴⁷⁾

A third study examined the relationship between average income and urbanization for some 80 countries at two points in time – 1960 and 2004.⁽⁴⁸⁾ It confirmed a relationship between urbanization and income, particularly at higher levels of urbanization, but it was not simple or linear. This link had also strengthened between 1960 and 2004. A key conclusion was that:

“... the links between urbanization and income are relatively weak at low levels of development ... urbanization in Africa over the past 45 years has been accompanied by sluggish economic growth.”⁽⁴⁹⁾

A fourth study focused only on Africa found that nearly three-quarters (71 per cent) of the 32 countries analyzed actually had a negative correlation between the level of urbanization and GDP over the 1985–2000 period.⁽⁵⁰⁾ This could be because people left rural areas as a result of poverty and crises, or because migration to urban areas undermined economic performance by contributing to undue congestion and diverting scarce public resources to fund social infrastructure. Similarly, the *World Development Report 1999/2000* argued that African cities are exceptional in failing to serve as drivers of growth: “*Instead they are part of the cause and a major symptom of the economic and social crises that have enveloped the continent.*”⁽⁵¹⁾

Various observers have suggested that Africa may have urbanized prematurely in response to push factors (rural droughts, falling agricultural prices and ethnic conflicts) rather than the pull of economic opportunities.⁽⁵²⁾ Indeed, 81 per cent of African governments believe that urbanization is excessive and have policies to reduce rural–urban migration.⁽⁵³⁾ These governments have strong anti-urban sentiments because of the social tensions, overcrowding and physical squalor created in cities, combined with the breakdown of traditional family structures and the spread of crime and disease.⁽⁵⁴⁾

One qualification to bear in mind about the four studies mentioned above is that censuses are rare in many of the poorest countries and estimates of urbanization are often projections based on old data. Therefore there are doubts about the reliability of census data for examining the relationship between urbanization and development.⁽⁵⁵⁾ Official statistics

45. Ravallion, M, S Chen and P Sangraula (2007), “New evidence on the urbanization of global poverty”, World Bank Policy Research Working Paper, Washington DC, page 27.

46. See reference 45, page 28.

47. Kamete, Amin Y, Arne Tostensen and Inge Tvedten (2001), “From global village to urban globe: urbanization and poverty in Africa: implications for Norwegian aid policy”, Chr. Michelsen Institute, Bergen, quoted in Njoh, Ambeh J (2003), “Urbanization and development in sub-Saharan Africa”, *Cities* Vol 20, No 3, page 169.

48. Bloom, D E and T Khanna (2007), “The urban revolution: rapid urbanization may prove a blessing provided the world takes notice and plans accordingly”, *Finance and Development* Vol 44, No 3, pages 9–14.

49. See reference 48, page 11.

50. Bouare (2006) quoted in White, Michael J, Blessing U Mberu and Mark A Collingson (2008), “African urbanization: recent trends and implications”, in George Martine, Gordon McGranahan, Mark Montgomery and Rogelio Fernández-Castilla (editors), *The New Global Frontier: Urbanization, Poverty and Environment in the 21st Century*, Earthscan, London, pages 301–316.

51. World Bank (2000), *World Development Report 1999/2000: Entering the 21st Century*, Oxford University Press, New York, page 130.

52. See, for example, Commission for Africa (2005), *Our Common Interest: Report of the Commission for Africa*, London, 464 pages.

suggested relatively rapid urbanization in many sub-Saharan African countries in the 1990s, despite limited economic growth. Yet more recent census data indicate slower rates of urbanization, perhaps in response to scarce economic opportunities.⁽⁵⁶⁾ Other measures of agglomeration that claim greater international comparability suggest that Africa is not as urbanized as the standard urbanization rates imply.⁽⁵⁷⁾

The idea that there are no economic advantages from urbanization in Africa has been countered by at least three other studies, which show a connection between urbanization and development. Njoh⁽⁵⁸⁾ examined data for 40 sub-Saharan African countries and found a strong positive correlation between urbanization and human development. In a broader study, Kessides⁽⁵⁹⁾ confirmed a relationship between urbanization and growth in 15 of the 24 African countries she examined over the period 1990–2003. She also showed that national growth stemmed from urban industries, supporting the idea of cities as growth generators. In a fuller report she concluded that:

“Africa cannot simply be characterized as ‘urbanization without growth’, and the term does not even fit many of the countries. The economic growth that has taken place in the past decade derives mainly from urban-based sectors (industry and services), and this is especially true of the better-performing economies. But cities have clearly not lived up to their productive potential because of widespread neglect and bad management.”⁽⁶⁰⁾

She recognized that the gains from agglomeration may be curtailed if shortcomings in urban services, land, transport, housing and local government mean that the costs outweigh the benefits:

“The simple concentration of firms and people does not guarantee that agglomeration economies will be realized. Many African firms are not experiencing the market efficiencies, ease of mobility and low transactions costs that better-managed cities could deliver, much to the detriment of the economy and competitiveness.”⁽⁶¹⁾

A more recent study sought to model the impact of accelerated urbanization in Africa on economic growth, poverty and migration.⁽⁶²⁾ They used empirical data from two agriculture-based countries where urban development is central to policy debates – Ethiopia and Uganda. A related objective was to compare the effectiveness of public investment in rural and urban areas. The authors concluded that:

“... urbanization and agglomeration economies are important sources of economic growth and might well be a driver of long-term structural transformation in Africa. However, over the short term, investing in major cities does little to address national poverty.”⁽⁶³⁾

In other words, urbanization can help to promote economic growth and industrialization, but the scale of employment generated is modest in the short term and the benefits for poor rural communities are limited. Hence, urban strategies may widen regional inequalities and cause social instability. They concluded that urban development should be actively encouraged, but it should also be supported by continued investment in rural agriculture. In a related paper they also advocated a better understanding of “... *agglomeration economies within particular sectors*

53. United Nations (2010), *World Population Policies 2009*, Department of Economic and Social Affairs, New York, 504 pages.

54. McGranahan, G, D Satterthwaite, C Tacoli, D Mitlin and I Turok (2009), “Africa’s urban transition and the role of regional collaboration”, *Human Settlements Working Paper Series*, Urban Change 5, IIED, London, 58 pages.

55. See reference 16.

56. Potts, Deborah (2009), “The slowing of sub-Saharan Africa’s urbanization: evidence and implications for urban livelihoods”, *Environment and Urbanization* Vol 21, No 1, April, pages 253–259; also Potts, Deborah (2012), “Whatever happened to Africa’s rapid urbanization?”, *Counterpoints*, Africa Research Institute, London, 20 pages.

57. Uchida, Hirotsuga and Andrew Nelson (2010), “Agglomeration index: towards a new measure of urban concentration”, in Jo Beall, Basudeb Guha-Khasnobis and S M Ravi Kanbur (editors), *Urbanization and Development: Multidisciplinary Perspectives*, Oxford University Press, Oxford, pages 41–59.

58. See reference 47, Njoh (2003).

59. Kessides, Christine (2007), “The urban transition in sub-Saharan Africa: challenges and opportunities”, *Environment and Planning C – Government and Policy* Vol 24, No 4, pages 466–485.

60. Kessides, Christine (2005), “The urban transition in sub-Saharan Africa: implications for economic growth and poverty reduction”, *Africa Region Working Paper Series No 97*, World Bank, Washington DC, page xxii.

61. See reference 60, page ii.

62. See reference 18; also Dorosh, Paul and James Thurlow (2012b), “Can cities or towns drive African development? Economy-wide analysis for Ethiopia and Uganda”, Working Paper, WIDER, Helsinki, 24 pages.

63. See reference 62, Dorosh and Thurlow (2012b), page 2.

64. See reference 18, page 121.

and developing country contexts, especially the quantity and types of public investments needed to enhance them."⁽⁶⁴⁾

There is a related issue of whether people migrating from rural areas are better off in urban areas. Once again, this is difficult to assess and evidence is sparse. Although living conditions in informal urban settlements are often very poor, many migrants do seem to benefit from the opportunity to move to cities through improved livelihoods and/or better services. Awareness of this prompts further rounds of migration by relatives and acquaintances. The limited research available suggests that on balance, and after a passage of time, people tend to be better off than if they had stayed in rural locations, and are therefore making economically rational decisions. Urban incomes are generally higher than rural incomes, and a review of the evidence concluded that:

"...although there is substantial fluctuation in individual incomes in urban areas, rural-to-urban migrants are able to attain earnings comparable to those of native urbanites after an adjustment period."⁽⁶⁵⁾

65. Montgomery, Mark, Richard Stren, Barney Cohen and Holly E Reed (editors) (2003), *Cities Transformed: Demographic Change and its Implications in the Developing World*, National Academy Press, Washington DC, page 353.

It is symptomatic of the wider shift in international thinking towards urban areas noted earlier that the World Bank's perspective on African urbanization has turned around during the last decade, from seeing the phenomenon as a cause of economic problems to being an important catalyst for success. The *World Development Report 2009* singled out Africa for special attention because of the unmatched potential of its urban areas to boost growth. Anti-urban attitudes on the continent would also need to change: "*Urbanization, done right, can help development more in Africa than elsewhere.*"⁽⁶⁶⁾ Inefficient urban land markets with informal tenure systems and poor basic services were key impediments to functional urban systems and economic development.

66. See reference 2, World Bank (2009), page 285.

The experience of accelerated economic growth in Africa over the last decade provides a new context for considering the relationship between urbanization and development. Stagnation and de-industrialization in many African economies during the 1980s and 1990s made it difficult for cities to perform well. Economic decline and structural adjustment policies imposed by external organizations weakened state institutions and widened informality. The level of GDP per capita of Guinea Bissau, Liberia, Cameroon, Zimbabwe and Madagascar actually declined during this period.⁽⁶⁷⁾ The recent resurgence of many African economies has been driven by the extraction and exporting of primary commodities (especially oil, gas, metals and minerals such as diamonds and coal) and agricultural products.⁽⁶⁸⁾ This form of resource-based growth is not naturally urban oriented. Hence, there is a danger that Africa's current economic trajectory will also fail to build a connection between urbanization and development.

67. Turok, Ivan (2013), "Securing the resurgence of African cities", *Local Economy* Vol 28, No 2, pages 142–157.

68. See reference 27, Economic Commission for Africa (2012); also see reference 27, IMF (2011); and *The Economist* (2011), "The hopeful continent", 3 December, accessible at www.economist.com.

69. See reference 67; also see reference 28.

There is a strong case for government policies to align economic growth and urbanization agendas through vigorous pursuit of diversification and industrialization, i.e. adding value to raw materials, minerals and other natural resources.⁽⁶⁹⁾ Global experience suggests that cities can help to transform productive activity and build more integrated economies with stronger backward and forward linkages. They can provide the enabling environments through physical and social infrastructure, human capital, financial systems, technical support and responsive governance. More prosperous cities would also stimulate rural economies and incomes by raising the demand for all kinds of natural resources and agricultural

products. This growth path could be more sustainable if combined with a green economy strategy designed to support renewable energy, restore ecosystems, recycle resources and regionalize the production of food, water, building materials and other goods and services.⁽⁷⁰⁾ It could also be more equitable if combined with inclusive policies designed to give better access to urban benefits to low-income residents, and foster rural–urban linkages beneficial to rural dwellers.

70. See reference 29, Abbott (2012); also see reference 4.

VII. IMPLICATIONS FOR POLICIES TOWARDS URBANIZATION

The growing recognition by leading global organizations and intellectuals that urbanization is relevant to socioeconomic development is highly significant, especially given the traditional neglect of cities in mainstream economic theory and policy and in development studies and practice. While urbanization provides many economic, social and environmental opportunities, urban population growth in low- and middle-income countries is also one of the major global challenges of the twenty-first century. This makes it all the more important to move beyond rhetorical statements about the economic vitality of cities and the dynamic impact of urbanization, and to deepen our understanding of the processes involved, including how to plan and manage the phenomenon to best effect. There is an urgent research and policy agenda that needs all the support it can get from international development agencies, national governments, civil society organizations and think tanks.

The evidence assembled for this paper suggests that the development effects of urbanization and the magnitude of agglomeration economies are very variable. There is no simple linear relationship between urbanization and economic growth, or between city size and productivity. While urbanization often has the potential to promote economic growth, the extent to which this potential is realized is likely to depend on how conducive the institutional setting is and how appropriate the investments in public infrastructure are. Removing barriers to rural–urban mobility may enable economic growth, but the economic benefits will be much larger with supportive policies, markets and infrastructure investments. At least in principle, governments can work to enable the benefits of agglomeration to be better achieved and the costs of congestion to be reduced. To do this effectively requires intervening carefully in the urbanization process, so as to improve and not undermine its voluntary nature, for example by helping people to make better-informed choices. Incremental improvements are possible, and an obvious first step is for cities to use realistic projections of future populations as the basis for investing in public infrastructure and implementing land policies. In some contexts it is also important for national governments to give cities the incentive to plan for this growth and to discourage them from using a lack of services to deter low-income migrants.⁽⁷¹⁾

The character or form of urbanization also influences its effect on poverty and the natural environment. Failing to plan on the basis of population projections is most detrimental to the prospects of the poorest urban dwellers and is also environmentally problematic. Sprawling settlements extending carelessly over environmentally sensitive land will undermine ecological services. When located on the urban outskirts far from economic opportunities, informal settlements may not only

71. Feler, Leo and J Vernon Henderson (2011), "Exclusionary policies in urban development: under-servicing migrant households in Brazilian cities", *Journal of Urban Economics* Vol 69, No 3, pages 253–272.

lack basic water and sanitation services, but also trap communities in places where the prospects of upward mobility are remote. Urban overcrowding and congestion are not merely economic constraints, drags on productivity and deterrents to private investment. They also worsen living conditions, spread disease, undermine people's life chances and fuel dissatisfaction and social unrest. The inefficient use of urban land as a result of haphazard and poorly coordinated development, or of active exclusionary policies, contributes to environmental degradation, extra travel, higher carbon emissions and air pollution.

Judgements about patterns of urbanization need to be based on social and environmental considerations as well as market-based economic calculations. In other words, an holistic perspective is important. Economic, social and environmental outcomes all appear to be influenced by the form or "quality" of urbanization as well as its level (the proportion of the population living in urban areas) or rate (the annual increase in the level of urbanization). The quality of urbanization includes the way in which people and firms find their way into cities – the position people occupy in urban labour and housing markets and social networks, and the niche product markets, supply chains, collaborative networks and physical spaces occupied by firms.

Government policies to encourage or discourage urbanization can have a big effect on the character of urbanization, whether or not they influence the rate of urbanization. Policies towards informal settlements are especially important, particularly when these areas function as gateways to urban labour markets, housing systems and public facilities such as schools and clinics. Governments can make entry conditions much more difficult through indifference or hostility to shack settlements, or they can pursue a more positive and supportive approach, including the provision of land, upgrading shelter and services, and help with building sustainable livelihoods. In some countries, just removing the petty rules, regulations and other institutional barriers that frustrate migrants trying to gain a foothold in the city would be worthwhile.⁽⁷²⁾

Given current uncertainties about the relationship between urbanization, growth and environmental sustainability, it makes more sense to seek out ways of enabling forms of urbanization that clearly contribute to these goals than to encourage (or discourage) urbanization per se. Those who believe urbanization is advantageous, such as the authors of the *World Development Report 2009*, can make the case for urban investments without arguing that these be treated more favourably than rural investments.⁽⁷³⁾ Similarly, those who believe urbanization is advantageous can argue that cities should be more welcoming and inclusive, while condemning rural measures that deprive local residents of access to land and drive them to leave their rural homes. We need to move away from the notion that influencing the rate of urbanization is an appropriate policy goal in and of itself. It is not only very difficult to influence, but the ultimate impact can be positive or negative, depending on how that influence is achieved.

Much the same applies to efforts to secure social and environmental benefits from urbanization and compact settlement. There are some doubts about the social and environmental implications of many very dense settlements, as noted above.⁽⁷⁴⁾ However, if used appropriately, density can improve the environmental and economic performance of human settlements.⁽⁷⁵⁾ It can facilitate public transport, reduce the cost

72. See reference 71; also McGranahan, Gordon, Diana Mitlin and David Satterthwaite (2008), "Land and services for the urban poor in rapidly urbanizing countries", in George Martine, Gordon McGranahan, Mark Montgomery and Rogelio Fernández-Castilla (editors), *The New Global Frontier: Urbanization, Poverty and Environment in the 21st Century*, Earthscan, London, pages 77–98.

73. See reference 2, World Bank (2009).

74. Neuman, M (2005), "The compact city fallacy", *Journal of Planning Education and Research* Vol 25, No 1, pages 11–26.

75. Davoudi, Simin, Jenny Crawford and Abid Mehmood (2009), *Planning for Climate Change: Strategies for Mitigation and Adaptation for Spatial Planners*, Earthscan, London, 344 pages; also see reference 30; and Vella, A and M Morad (2011), "Taming the metropolis: revisiting the prospect of achieving compact sustainable cities", *Local Economy: The Journal of the Local Economy Policy Unit* Vol 26, No 1, pages 52–59.

of bulk infrastructure and reduce encroachment on fragile ecosystems. It can also support a vibrant public realm and creative atmosphere in which people from different backgrounds mix and mingle, with benefits for social cohesion and cultural industries. For this to be achieved, however, density needs to be used as a tool and be seen as a potentially advantageous outcome of good social and environmental policies, and should not be an end in itself.

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