Chapter 8
Economic Foundations for Sustainable Urbanization: The Link with Competitiveness

Marco Kamiya and Loeiz Bourdic

UN-Habitat's priority is to support city leaders to achieve sustainable urbanisation by providing urban planning methods and systems to address current urbanization challenges such as population growth, urban sprawl, poverty, inequality, pollution, congestion, as well as urban biodiversity, urban mobility, and energy.

This work is done with cities, as urban economies generate more than 90% of global gross value added (Gutman 2007). This chapter explains what are the fundamentals needed to design urbanisation policies and what is the link with competitiveness. We sustain that competitiveness is an expression of productivity, and from a city approach, both are strongly linked to the spatial dimension and urban layout.[1] In this chapter we explain urban productivity and competitiveness; the components of the integrated approach to urbanization (Three-Pronged Approach); the layers of government that govern cities, and finally provide thoughts on competitiveness and cities.

8.1 Urban Productivity and Competitiveness

Productivity is traditionally defined as the best use of labour and capital given a state of technology, it is usually measured as a rate of output by units of inputs, where the main inputs are labour and capital. Then urban productivity is labour and

[1]This chapter incorporates recent developments from UN-Habitat operational and normative work, and relies on UN-Habitat and Morphologie Institute Paris (2017), Salat, Serge; Bourdic Loeiz & Marco Kamiya. "Economic Foundations for Sustainable Urbanization: The Three-Pronged Approach, Urban Planning, Legal Framework, and Municipal Finance", 2nd Edition, March 2017. Nairobi, Kenya.

M. Kamiya (✉) · L. Bourdic
UN-HABITAT, Nairobi, Kenya
e-mail: marco.kamiya@un.org

P. Ni et al. (eds.), *House Prices: Changing the City World*,
https://doi.org/10.1007/978-981-32-9111-9_8

capital, plus land, material, energy and information, all the spatial features that bring in higher the value-added output of a city. One of the criticism of the concept of productivity is that it does not properly include land as a major component (Ryan-Collies et al. 2017) and so it is difficult to model the urban economy when a spatial analysis that comes with land and properties are needed.

Productivity is the base for competitiveness, as higher productivity means that a nation or city can produce goods that are demanded by global markets. Competitiveness is ultimately a revealed productivity of the city. Cities are the result of multivariable and integrated factors working together and impacting on productivity and competitiveness.[2]

Different theories try to explain why and under which conditions urban development is accompanied by rising productivity levels. The theory of agglomeration economies, economies of scale and scope and different variations of both.

The theory on economies of scale states that the greater the quantity of a good produced, the lower are the average costs per product unit. Economies of scale may also lead to a reduction of the variable costs per product unit due to operational efficiencies and synergies. Producing a high volume of one product type allows firms and workers to specialize in specific tasks and thereby achieve a high productivity level.[3] This concept can be transferred on the relationship between city size and productivity level, however, for cities this link is not mechanical since there are also diseconomies of scale due to governance and planning of large cities or metropolises that must be considered.

The theory on economies of scope states that production costs can be reduced by producing a range of goods of a similar type together instead of producing each one of them on its own. Transferred to the macro level this theory explains the existence and growth of urban agglomerations with the opportunities they offer for businesses to utilize the interrelations between the production processes of their goods with those of other business. Cities enable business to share centralized functions in procurement, production and sale processes.

Urbanization economies seek to explain the relationship between city size and productivity level. It suggests that urban diversity and large city sizes generate productivity advantages for any business locating in an urban agglomeration. As it argues that the urban environment creates positive externalities which benefit different industries. This theory is especially suitable for explaining high and growing productivity levels in cities with no single dominant industry. Firms locating in a large city can benefit from the common physical resources, such as roads, buildings, and power supply, and from the access to a large, diverse labour pool, regardless of their industry.

Localization economies, on the other hand, discusses how the size of an industry in a city affects the productivity level of a particular activity. The productivity

[2]See the Global Competitiveness Report [http://www.weforum.org/], on urban competitiveness (Ni et al. 2013), and the analytical chapter of the Global Urban Competitiveness Report 2017 (Ni, Kamiya Ding).

[3]Lobo et al. (2011) from the Santa Fe Institute demonstrate empirically that in a typical city in the US Total Factor Productivity in 11% with each doubling in population.

advantages of cities are seen to relate primarily to higher levels of activity in an industry, with the benefits accruing to that industry (Jofre-Monseny et al. 2012).

Agglomeration economies unify ideas from the theories presented above. It states that urban economies offer a diversified and extended market for the purchase of inputs on the one hand and for selling final goods on the other. In the literature on economies of agglomeration, different factors are argued to cause productivity advantages in urban agglomerations. Higher concentration and scale of people, activities, and resources in urban areas foster economic growth (Duranton & Puga, 2004; Fujita & Thisse, 1996; Henderson, Kuncoro & Turner, 1995; Puga, 2010), innovation (Arbesman et al. 2009; Bettencourt et al. 2007; Feldman abd Audretsch 1999), and increase efficiencies (Kahn 2009). The agglomeration economies made possible by the concentration of individuals and firms make cities ideal settings for innovation, job and wealth creation (Carlino et al. 2007; Brian et al. 2008; Puga 2010; Rosenthal and Strange 2004).

Larger urban areas are the most productive since they allow for greater specialization in labour use, better matching of skills and jobs, and a wider array of consumption choices for workers and ancillary services for producers. It is also in large cities where the vast majority of substantial innovations emerge. As long as this greater productivity outweighs higher costs for land, labour, housing, and other necessities, the city can thrive. (World Bank 2003, 2009).

An emerging approach linking urbanization and productivity comes by linking value chain and supply chains. The urban setting is the place where goods are produced and those goods are results of several inputs, goods, and services, then the urban forms and the infrastructure that offers highways, roads, and information technology are as important as human capital in the production of final goods. Then supply chains which determine the channels through which inputs are delivered to a production hub impact in efficiency, competitiveness and ultimately in productivity.[4]

But, cities not only have the potential to provide productivity advantages, there are also negative externalities being generated in urban agglomerations, and the most relevant is related with land. Land in urban areas is scarce; this leads to higher land prices in urban compared to rural areas and leaves room to speculation. Especially in case of lacking public and private transport networks, urbanization is accompanied by rising congestion, security, noise, pollution levels and environmental effects.

A city has to generate more positive than negative externalities, meaning the factors causing productivity advantages have to be supported to create positive effects on the local economy; the negative externalities of urban agglomerations, on the other hand, have to be rooted out to the greatest extent possible.

[4]Roads and productivity is a potential link (see Fernald 1999). Another is proximity and access to jobs (see Bertaud 2002).

8.2 Productivity and Land

The standard model of land prices in mono-centric cities is originally designated to make theoretical predictions on how far a city will extend. The theory is based on how much the urban population is willing to pay for piece of land depending on the accessibility to the urban centre. The willingness to pay increases with accessibility to the centre, since people and companies prefer locations with better access to the economic opportunities in the centres and are willing to pay more for them (Alonso 1964; Ottensmann 1977; Salat 2014a, b). As shown in the following chart, this translates into a decreasing gradient of land value as the distance from the city centre rises (Fig. 8.1).

The price of agricultural land, on the other hand, is assumed to be constant in this model. The outer radius R of potential built-up urban area is then defined as the intersection between the two curves. The theoretical city limit is thus the result of a trade-off between urban land price and agricultural land price.

This concept can not only be used to make theoretical predictions on the spatial limits of urban extension; the decreasing gradient of land value with increasing distance to the city centre also offers an indicator for the quality of urban development as well as of the density at certain distance from the center. It reflects the desirability and feasibility of a city on the one hand and the quality of its infrastructure on the other. The desirability and profitability of a city are reflected in the prices people and businesses are willing to pay, displaying the economic and commercial benefits of settling close to the urban centre. The difference between

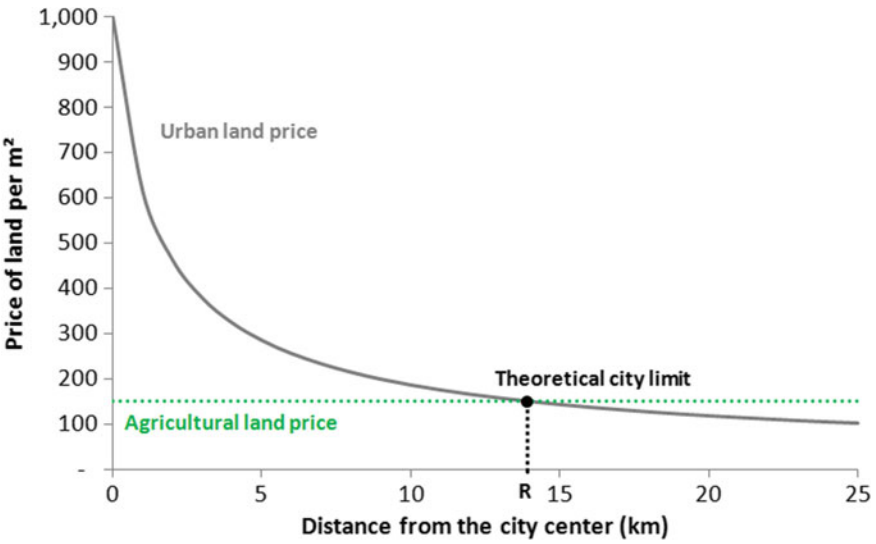

Fig. 8.1 Urban land price and agricultural land price define the city size *Source* Urban Morphology Institute

land value in the city centre and in the surrounding rural areas gives an idea of the economic opportunities, the liveability and attractiveness of the city compared to rural areas: The more economic advantages a city promises for workers and businesses and the more liveable it is, the higher is the willingness to pay for land in the urban area. This gives an indication of the opportunity costs of living in the city. By also integrating the regional agricultural land price this indicator becomes comparable among different regions of different economic development levels.

The gradient of decreasing land value reflects how fast the accessibility decreases with distance to the urban centre: The better developed the public transport and street network in a city, the slower the accessibility of the urban centre degrades with increasing distance.

Besides analysing the decrease of land value with rising inaccessibility to the urban centre, the productivity per km^2 can be examined, depending on the distance to the city center. Urban productivity per km^2 can be defined as the Gross Value Added (GVA) per km^2 less the infrastructure costs per km^2. Beyond a certain distance from the city centre (or the centre were production is mostly concentrated), this indicator for urban productivity becomes negative. The indicator reflects how fast the urban productivity advantages decrease with distance to the centre. Again, the value of the gradient indicates the quality of the urban infrastructure. For example, as certain activities require proximity, agglomeration of activities provide higher productive areas, and in those areas, better and more sophisticated infrastructure is located.

8.3 The Three-Pronged Approach

Many of the factors leading to productivity advantages in urban agglomerations, discussed above are generated by the proximity and density of workers and businesses in urban agglomeration. Proximity, density, integrity and accessibility, however, are not necessarily given in every urban agglomeration and not automatically maintained during the urban extension process. There are rather planning and regulatory activities, as well as strategically sound public investments necessary to ensure the establishment or preservation of density of residential housing and businesses.

UN-Habitat promotes three fundamental components that must be considered by local authorities in the process of planning and implementing urban extension programmes in order to achieve sustainable urbanization. Sound performance in these three areas is essential to exploit the potential of a city to generate wealth, employment, coexistence and cultural interchange as discussed in the presented theories and avoid the pitfalls of a spontaneous development.

The essential components for successful Planned City Extension (PCE), are Urban Design, Financial Management, and Regulations. For a PCE to succeed, UN-Habitat advises local authorities to balance actions on the three components putting similar effort in good performance in the three areas, so that action in one

can support the performance in the others. The three essential components of successful PCE are the foundation for further action. To tackle central issues, like urban youth issues, housing scarcity etc. successfully in urban extension programmes, it is essential to create an appropriate framework through good performance on the three components of the Three-Pronged Approach (3PA).

For the 3PA most of the indices that would measure it are correlated. As an example, cities with high residential and job density often display at the same time higher walkability and transit accessibility. Those cites also have high technical capacity for planning and design, possess sustainable municipal finance, and a stable set of rules and regulations.

The Three-Pronged Approach Model[5]
As this study aims at better understanding the benefits of the 3PA on urban productivity, a framework is provided to understand the importance of the three prongs that result on a necessary trinity for urban planning.
The urban productivity is measured as the gross value added per km^2 in the area that has been subject to the 3PA programme less the capital and operational expenditures per km^2 and less the total overcost per km^2 occurring in this area. The strength of this approach is that urban productivity is decomposed into four components, on which the impact of each urban planning characteristic can be assessed. The decomposition of urban productivity comes as follows, with GVA being the Gross Value Added, CapEx the Capital Expenditure, OpEx the Operational Expenditures and TotOve the Total Overcost.

$$\frac{Urbanproductivity}{Km^2} = \frac{GVA}{Km^2} - \frac{CapEx}{Km^2} - \frac{OpEx}{Km^2} - \frac{TotOve}{Km^2}$$

It is assumed that production (GVA), CapEx, OpEx and TotOve occur according to augmented Cobb-Douglas functions.

8.4 Urban Planning

UN-Habitat promotes five key principles for urban design,[6] as concepts for urban planning rather than economics. These principles are empirical and pragmatic advice to "good" urbanization and provided to policymakers when urban expansion

[5]UN-Habitat (2017) "Economic Foundations for Sustainable Urbanization."

[6]UN-HABITAT (2014) "A New Strategy of Sustainable Neighbourhood Planning: Five principles" Urban Planning Discussion Note 3. Nairobi, Kenya.

plans are designed, so they are not derived from an abstract model and each principle should be applying considering the geographic, social and political context.[7] These five principles are:

Adequate space for streets and an efficient street network. A street network that not only serves private and public transport vehicles but also specifically aims to attract pedestrians and cyclists. The street network should occupy at least 30% of the land and at least 18 km of street length per km^2.

High density. High concentration of people and their activities. At least 15,000 people per km^2, that is 150 people/ha or 61 people/acre.

Mixed land-use. Combination of different residential, commercial, industrial, office or other land use in one neighbourhood. At least 40% of floor space should be allocated for economic use in any neighbourhood.

Social mix. The availability of houses in different price ranges and tenure types in any neighbourhood to accommodate residents from different backgrounds and with different income level. 20 to 50% of the residential floor area should be for low cost housing; and each tenure type should be not more than 50% of the total.

Limited land-use specialization. Reduced amount of single function blocks or neighbourhoods. Single function blocks should cover less than 10% of any neighbourhood.

The proportion of urban space dedicated to public use and the features of the network of streets, commercial corridors and sidewalks determine the walkability of a city; they thereby determine a city's quality and intensity of street life and interaction between the citizens. The amount of space dedicated to streets and transport infrastructure also shapes the city regarding connectivity and accessibility, thereby affecting the level of congestion and the air quality. A city's street network, moreover, functions as the layout for the provision of urban basic services. Its quality determines the affordability of these urban services. The positive effect of sufficiently high quality public space on a city's liveability, moreover, causes potential buyers to be willing to pay more for urban land, and also allows local authorities to plan for future cities by making easier reordering and reorganization of the plotting areas and roads. To ensure a development of quality street patterns and public space, spontaneous growth must be prevented through urban planning from the initial stage of urban expansion.

To prevent urban sprawl and promote sustainable urban extension, it is necessary to achieve high density of residents as well as economic activity. Compared with low density, high density has economic, social and environmental benefits as follows. Efficient land use slows down urban sprawl because high density neighbourhoods can accommodate more people per area. Through high density development costs for public services, such as police and emergency response,

[7]For example, public space of 50% is not to be intended for slums where slum upgrading must be incremental but for established cities or cities are being planned.

school transport, roads, water and sewage, can be reduced. High density development leads to high walkability and accessibility, thereby reducing car dependency and parking demand, and facilitating the provision of an efficient public transport network. This increases energy efficiency and decreases pollution.

In the planning process, it is crucial to match efforts to increase urban density with the needs for public space discussed above. Therefore, the general plan on the urban layout has to integrate considerations on the present and future transportation and street infrastructure needs. Urban density must not overwhelm infrastructure at risk of congestion. Reciprocally, under-using infrastructure because of low-density levels is not economically efficient. Public transport hubs should be located in an advantageous place for capturing the peaks of urban density, services and urban amenities. It is therefore important that densities be articulated across the metropolitan area and strategically increased along key infrastructure (i.e., transit) corridors.

Recent literature on urban planning proposes a general plan combined with rules and regulations rather than a detailed master plan that is conceptualized in the early stage of a development programme. A PCE based on a general plan with supplementing rules and regulations allows for evolution and adaption to changes in economic or environmental circumstances. The definition of the street network is the key element of a general plan as the street network, as the backbone of a city, determines the layout of a city.

The development of productive urban extensions relies on the capacity of stakeholders to integrate spatial planning and all essential urban infrastructure policies on different levels, from those conceptualized on a metropolitan scale to neighbourhood-scaled development policies. Very often in fast urbanizing countries, master plans focus on the large scale but lack the fine grain level of detail that is essential to urban productivity. The diversity of land plot sizes is essential to support a vibrant and sustainable land market. Plots are constitutive of land sale processes and structure land property. As such, they are one of the basic bricks on which urban economic markets rely. Because of the lack of human and technical resources, or due to different artistic and design concepts, most of the current urbanization in developing countries and emerging economies are based on massive plots: the superblocks which result in an urban fabric lacking density and diversity.

To avoid these problems, new urbanism theories promote the core concept of mixed land-use. Mixed land-use requires some combination of residential, commercial, industrial, office, or other land-use. To mix different economic and residential activities in one neighbourhood, they have to be made compatible and be integrated in a well-balanced manner by careful design and management.

8.5 Financial Framework and Governance

The second essential pillar for successful PCE is a sound financial plan, meaning proper budgeting, revenue generation and expenditure management. Municipal finance authorities must be able to translate urban development policies into a sound financial plan and to generate the income required for their implementation. Careful budgeting is essential to guarantee the maintenance and development of public institutions programmes and infrastructure. Municipal finance activities should aim at preventing liquidity risks and reducing the dependency on transfers from the central government.[8]

For the successful implementation of a PCE programme, adequate financial frameworks and governance schemes must be in place, including:

The financial capacity of the municipality to finance and deliver infrastructures and plans
The financial know-how of the municipality to implement and monitor infrastructure delivery and plans
Effective institutions with clear roles and adequate human and financial capacity to perform them
Fiscal capacity of the municipality to raise revenues, e.g., through land and property taxes
High degree of freedom of municipalities with regard to central governments.

Along with history the role of the governments has been highly discussed, how much responsibilities they have to take is the big question, and it is a question that has not been solved yet, and that probably will never get solved because is a matter of preferences. However, in terms of local government responsibilities the path has been narrowed, the major role assigned to local governments is to provide goods and services within a geographic area to residents who are willing to pay for them. They should not do stabilization policy because they do not have access to monetary instruments and they should not do redistribution as a primary focus because it will result in a non-general equilibrium policy, with people moving from one place to another.

There are two useful principles that have to be taken into consideration for municipal finance. The subsidiarity principle (Barnett 1996), states that the efficient provision of services requires that decision making be carried out by the level of government that is closest to the individual citizen. The second has to do with the fiscal decentralization; it is a concept developed for transferring the financial responsibility from central governments to local authorities forcing local governments to deliver and fund an increasing number of services.

[8]See UN-Habitat (2009) and (2017) Finance for City Leaders Handbook.

8.6 The Legal Framework

Rules and regulations have the power to shape the form and character of the city by playing an essential role in the implementation of urban plans. Depending on the quality of rules and regulations supporting the general plan of a PCE and the quality of the local legal framework, the rules and regulation accompanying an urban plan can either support or hinder its implementation and evolution. A design following all the best practice of urban planning cannot be implemented if it does not comply with the local legal framework. First and foremost, particular attention must thus be given to legal feasibility and implementation of all components of an urban plan. Possible rules and regulation to support the implementation of an urban plan are: Floor Area Ratio regulations, setback rules, mixed use regulations, as well as regulations on plot sizes, the maximum distance between intersections, street design, etc.

The different areas of knowledge consider diverse elements by the time they are determining if a law is a good law or if it is not. But there are values that characterize a good law or a good legal framework, those elements according to Mousmouti and Crispi (2015) are: efficacy, effectiveness, efficiency and simplicity. Even though different views try to prevail one over another of the characteristics mentioned before, there is one at which everyone agrees and it is: effectiveness. In the particular case in which the legislation regards urbanization, eight pillars have to be achieved for a law to be effective. Those pillars according to the authors mentioned before are:

Law has to be attached to the urban realities
Law has to be developed according to evidence
Affected people should have a voice to express their position
Legislation has to be simple and easy to comply with
Legislation has to be easily accessible
The law has to be coherent and consistent
Legislation must have a capacity to deliver results
Make legislative quality a guiding value in the process of developing and implementing legislation.

Even though is desirable that the laws are established at the most immediate territorial level, and that the norms could be easily modified according to the context, this could not always happen. Is inevitable to consider factors that could allocate some particular norms at a level that do not fulfil the expectations established by the subsidiarity principle, those factors could be: economies of scale, development of the local institutions in comparison to the national institutions, desirable level of flexibility for the norms, among others (Berrisford 2017). To give a practical example, the establishment of a physical and fiscal cadastre, with an efficient, up-to date and publicly available information system, should be desirable at a local level, but the technological and physical infrastructure to fulfil this

objective could be costly if each local government acquire it individually, that is why usually this is held at a national level, because it represents efficiencies in terms of specialization for the country and savings.

8.7 Scales of Urban Assessment

When dealing with urban parameters, the scale of observation and of analysis is essential. Cities and urban environments are by nature highly heterogeneous areas, with intense concentrations and peaks of activities, and a long tail of sectors with a medium to low intensity. Average figures have thus to be handled with care, as they can hide very complex patterns of urban development. This study differentiates three scales on which a city can be assessed:

On the metropolitan scale, urban assessment addresses the spatial extension of the city. Analyses on this scale give an indication of the spatial layout of a city (by differentiating rural and urban land use) and of human activities (industries, offices, housing) and the way they are organized and distributed on the territory.
On the district scale, urban assessment addresses how streets and transportation networks are organized, as well as how urban amenities such as parks, hospitals or schools are distributed within the city.
On the neighbourhood scale, urban assessment considers the form and the size of urban blocks and the way they are divided into plots.

The metrics and indexes proposed in this study aim at being implemented at the very local scale: For measuring urban design matters, this is the neighbourhood scale and the block scale. Thereby the issue of city- or district-wide average values obscuring trends and the existence of spatial mismatch can be circumvented.

A systematic approach for assessing a government's performance with regard to urban design should be based on data with all parameters being measured on the same scale; therefore, the urban area could for example be gridded to cells of 500 m by 500 m which can be considered as the neighbourhood scale. In the case studies provided in this report, the layout used is either based on a 500 × 500 m gridding (Johannesburg), or using a more detailed gridding (200 × 200 m gridding in Paris, Census Output Areas in London).

To assess a government's performance about financial management and the efficiency of the legal framework, acquiring data on neighbourhood scale is not always possible or useful. Rules and regulations normally do not differ among neighbourhoods; there might, however, be differences between city districts. Municipal finance activities are also often undergone on a higher than neighbourhood level. The guiding principle, therefore, should be to acquire data for the lowest possible and sensible scale. The indicators provided seek to assess how well a PCE is funded. Therefore, they do not only capture characteristics of the conceptualization and implementation of a PCE, but also those components which constitute

Table 8.1 Investment and Responsibilities according to Layers of Government

Investment	Central Government	Metropolitan/ Regional Government	Municipal Government
Large-Scale transport infrastructure			
National road network (outside city)	▲	△	
National road network (crossing city)	△		△
Local road networks			▲
Airport	△	△	
Fluids protection			
Potable water		▲	△
Electricity		▲	△
Sanitation			
Solid waste landfill		△	△
Purification station		△	△
Smaller-scale infrastructure networks			
Roadways			▲
Electricity, drainage, swerage, and water distribution		△	△
Public lighting			△
Public facilities			
Major facility (for example, hospital)		▲	△
Commercial facility (for example, market)			▲
Social services facility (for example, school			▲
Development			
Industrial and commercial zones		△	△
Housing extension		▲	▲
Neighbourhood development			▲

Source Adapted and expanded from Paulais (2012)
▲ = majority of cases
△ = depending on the case or a shared responsibility

the framework for the PCE; this again explains why some concepts of the areas of financial management and legal framework are measured on higher than neighbourhood scale.

The different roles of governments are shown in Table 8.1, with investments that correspond to central or federal government, metropolitan or regional government, and municipal governments. Planned City Extensions and Planned City Infills

correspond to a neighbourhood level whereas airports, basic infrastructure for water, electricity, energy, and national highways networks belong to the central government.

8.8 Competitiveness and Implications for Policy

The concept of productivity is the basis for competitiveness. Competitiveness is a country or city to achieve a higher level of productivity, and that is reflected in higher income. But productivity is the optimal combination of labour and capital, and therefore to make the concept operational, it should incorporate land and real estate markets. Land is already present in spatial and urban economics as there is literature on agglomerations, urban layout and value chains/supply chains, that is incorporated in productivity analysis.

Land and real estate markets have two dimensions, the central government is in charge of large macro planning of economic poles and large-scale infrastructure, but it is at a provincial and municipal level that the decisions on planned city extension and planned city infills are done. So, land and local properties also become the largest source of 'endogenous' finance for local governments.

For policy, cities need to build and strengthen the core conditions for sustainable urbanization, and those are the rules and regulations, municipal finance, and urban planning and design. Planning, Finance, and Regulations are the base for the Three-Pronged Approach.

Once this is present as technical resources and city assets, local government can build stronger urban systems and provide basic services, water, energy, electricity, at a local level, and eventually take care of more complex tasks such as job creation by linking urban layout making it friendlier for productive activity and enhancing mobility of people and goods.

References

Alonso, W. (1964). *Location and Land Use. Toward a General Theory of Land Rent*. http://www.cabdirect.org/abstracts/19641802976.html.

Arbesman, S., Kleinberg, J. M., & Strogatz, S. H. (2009). Superlinear scaling for innovation in cities. *Physical Review E, 79*(1), 016115. https://doi.org/10.1103/PhysRevE.79.016115.

Barnett, R. (1996). Subsidiarity, enabling government and local governance. In *Urban governance and finance.—Montreal: Institute for Research on Public Policy*, 1997.

Bertaud, A. (2002). Note on urban transport and cities spatial structures. In *ABDCE Conference April 2002*.

Berrisford, S. (2017). *Reforming urban laws in Africa*. UN-Habitat, Cities Alliance, African Center for Cities, and Urban LandMark.

Bettencourt, L. M., Lobo, J., Helbing, D., Kühnert, C., & West, G. B. (2007). Growth, innovation, scaling, and the pace of life in cities. *Proceedings of the National Academy of Sciences, 104* (17), 7301–7306. https://doi.org/10.1073/pnas.0610172104.

Carlino, G. A., Chatterjee, S., & Hunt, R. M. (2007). Urban density and the rate of invention. *Journal of Urban Economics, 61*(3), 389–419. https://doi.org/10.1016/j.jue.2006.08.003.

Cohen, M. (2009). Aid, density, and Urban form: Anticipating Dakar. In S. V. Lall, M. Freire, B. Yuen, R. Rajack, & J-J. Helluin (Eds.), *Urban land markets* (pp. 385–97). Netherlands: Springer. http://link.springer.com/chapter/10.1007/978-1-4020-8862-9_15.

Duranton, G., & Diego, P. (2004). Micro-foundations of urban agglomeration economies. In J. V. Henderson & J. F. Thisse (Eds.), *Handbook of regional and Urban economics* (Vol. 4, pp. 2063–2117). Amsterdam: Elsevier.

Fernald, J. (1999) Roads to prosperity? Assessing the link between public capital and productivity. *The American Economic Review, 89*(3), 619–638.

Fujita, M., & Thisse, J.-F. (1996). Economics of agglomeration. *Journal of the Japanese and International Economies, 10*(4), 339–378. https://doi.org/10.1006/jjie.1996.0021.

Gutman, P. (2007). Ecosystem services: Foundations for a new rural–urban compact. *Ecological Economics, 62*(3–4), 383–387. https://doi.org/10.1016/j.ecolecon.2007.02.027.

Henderson, V., Kuncoro, A., & Turner, M. (1995). Industrial development in cities. *Journal of Political Economy, 103*(5), 1067–1090. https://doi.org/10.1086/262013.

Jofre-Monseny, J., Marín-López, R., Viladecans-Marsal, E. (2012). What underlies localization and urbanization economies? Evidence from the location of new firms. Universitat de Barcelona & Institut d'Economia de Barcelona (IEB).

Kahn, M. E. (2009). Urban growth and climate change. *Annual Review of Resource Economics, 1* (1), 333–350. https://doi.org/10.1146/annurev.resource.050708.144249.

Knudsen, B., Florida, R., Stolarick, K., & Gates, G. (2008). Density and creativity in U.S. regions. *Annals of the Association of American Geographers, 98*(2), 461–478. https://doi.org/10.1080/00045600701851150.

Lobo, J., Bettencourt, L., Strumsky, D., & West, G. B. (2011, September). *The economic productivity of urban areas: Disentangling general scale effects from local exceptionality*. SFI Working Paper: California US.

Mousmoti, M., & Crispi, G. (2015). "Good" legislation as a means of ensuring voice, accountability, and the delivery of results in urban development. In *The World Bank legal review Volume 6 Improving delivery in development: The role of voice, social contract, and accountability* (pp. 257–269).

Ni, P., Kresl, P., & Liu, W. (2013). *The global urban competitiveness report 2013*. Cheltenham, UK: Edward Elgard.

Ottensmann, J. R. (1977). Urban sprawl, land values and the density of development. *Land Economics*, 389–400.

Puga, D. (2010). The magnitude and causes of agglomeration economies. *Journal of Regional Science, 50*(1), 203–219. https://doi.org/10.1111/j.1467-9787.2009.00657.x.

Rodriguez, D. A., & Carlos H. M. (2008). Land value impacts of bus rapid transit: The case of Bogota's TransMilenio. *Land Lines*. http://trid.trb.org/view.aspx?id=850940.

Rosenthal, S. S., & Strange, W. C. (2004). Evidence on the nature and sources of agglomeration economies. In J. V. Henderson, & J-F. Thisse (Eds.), *Handbook of regional and urban economics*, (Vol. 4, pp. 2119–71). Amsterdam , North-Holland , New York, NY, USA: Elsevier. http://linkinghub.elsevier.com/retrieve/pii/S1574008004800063.

Ryan-Collies, J., Lloyd, T., & Macfarlane, L. (2017). *Rethinking the economics of land and housing*. London, UK: Zed Books.

Salat, S., & Bourdic, L. (2014a). *Land use intensification in fine grain cities*. Urban Morphology Institute Working Paper.

Salat, S., & Bourdic, L. (2014b). Transforming Johannesburg. Urban Morphology Institute.

Spence, M., Annez, P. C., & Buckley, R. M. (Eds.). (2008). *Urbanization and growth*. Washington, DC: World Bank Publications.

UN-Habitat. (2009). In Slack, E. (Ed.), *Guide to municipal finance*. Nairobi, Kenya.

UN-Habitat (2014). A new strategy of sustainable neighbourhood planning: Five principles. Urban planning discussion note 3. Nairobi, Kenya. http://unhabitat.org/a-new-strategy-of-sustainable-neighbourhood-planning-five-principles/.

UN-Habitat. (2015). Planned city extensions: Analysis of historical examples. *Nairobi, Kenya*. http://unhabitat.org/books/planned-city-extensions-analysis-of-historical-examples/.

UN-Habitat & Morphologie Institute Paris. (2017). Salat, Serge; Kamiya, Marco & Loeiz Bourdic. *Economic foundations for sustainable urbanization: The three-pronged approach, urban planning, legal framework, and municipal finance* (2nd Edn), March 2017.

UN-Habitat. (2017). In M. Kamiya., & L-Y. Zhang, (Eds.), *Finance for city leaders: Improving municipal finance to deliver better services*. Nairobi, Kenya.

World Bank. (2003). *World development report 2003 : Sustainable development in a dynamic world—Transforming institutions, growth, and quality of life—Overview*. 24711. The World Bank.

World Bank. (2009). World development report 2009: Reshaping economic geography. *World Development Report*. Washington, DC.: World Bank.

World Bank. (2013). *Urbanization beyond municipal boundaries : Nurturing metropolitan economies and connecting Peri-Urban areas in India*. https://openknowledge.worldbank.org/handle/10986/13105.

World Economic Forum. (2015). *Global competitiveness report*. Switzerland: Davos. http://www.weforum.org/.