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# *Critical Commentary*. Informality in Space: Understanding Agglomeration Economies during Economic Development

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## 1. Introduction

Recent academic work supportive of urbanisation in developing countries in the tradition of the urban economics literature (UE, henceforth) is based upon models originally conceived for developed countries (see for instance, Henderson, 2003; Venables, 2005; Overman and Venables, 2005; Duranton, 2008; and Glaeser, 2011). In these models, all production takes place in 'formal' enterprises and the labour market functions perfectly. In developing countries, however, the formal sector is only responsible for a share of urban employment levels and growth, while the informal economy plays a substantial role. According to the ILO (2002), the share of employment absorbed by the informal economy between 1994 and 2000 was on average 72 per cent in sub-Saharan Africa, 65 per cent in Asia, 51 per cent in Latin America and 48 per cent in North Africa.

Given the importance of the informal economy for cities in developing countries, one would expect to find abundant theories and evidence linking it to urbanisation. However, in the UE literature, the informal economy, if mentioned at all, is treated as a side issue.[1] Duranton, in his review of what is 'known' about agglomeration effects in developing countries, writes

> Most of the available findings concern primarily the formal sector. … At this stage, we can only note that the *linkages between formal and informal sector firms are often intense*, which suggests that *agglomeration effects are generated within both the formal and informal sectors with benefits that accrue to both*. It is also worth mentioning that the case-study evidence that supports the existence of agglomeration effects also *strongly* supports the idea that *the informal sector is a strong contributor* (Duranton, 2008, p. 17; emphasis added).

There is, however, no substantial evidence to support these claims. Although a rather

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solid theoretical body of literature has shown that enterprises located in urban areas and/or those in 'clusters' can benefit from agglomeration economies (Duranton and Puga, 2004), to date there are no studies that rigorously demonstrate the existence of agglomeration economies in connection to the informal economy, or theories that can actually link urbanisation, informality and agglomeration economies.[2] The downside of an unchallenged theoretical framework is that relevant issues for cities in developing countries are left unexplored.

This Critical Commentary has three purposes. The first purpose is to demonstrate that, thus far, the treatment of the informal economy in empirical and theoretical studies dealing with agglomeration economies in the tradition of the UE literature has been insufficient and, often, misleading. This argument is pushed further to claim that, because the informal economy is an integral part of the economic system in developing countries, the common understanding of agglomeration economies *during* economic development is fundamentally incomplete. The second purpose is to suggest, *en passant*, relevant theoretical and empirical avenues which need to be covered by future research in order to bridge this gap. The third purpose is to propose a framework in which, following theories of structural segmentation (Piore and Berger, 1980), agglomeration economies are evaluated in relation to the possibilities for mobility between different segments composed by enterprises that make decisions under different sets of constraints. This commentary proposes that the quality of agglomeration, as opposed to the extent of agglomeration, should be the departing point when analysing agglomeration effects in urban areas in developing countries.

In what follows, conceptually based arguments are constructed by contrasting two different strands of literature: the UE literature on the one hand, and the informal economy literature on the other. In order to guide the analysis, two related questions are analysed. First, can agglomeration economies in fact arise from informal enterprises? And, secondly, can agglomeration economies arise from the interaction between formal and informal enterprises? To commence, working definitions of agglomeration economies, informal enterprises and the informal sector are established.

## 2. Definitions

### 2.1 Agglomeration Economies: Supply and Demand Mechanisms, and Other Explanations

Before commencing, it is useful to establish what the term 'agglomeration economies' (or 'agglomeration externalities') means in the context of the UE literature. According to Rosenthal and Strange (2004), agglomeration economies exist whenever the output of an enterprise depends positively not only on the production factors used by the enterprise but also on the output and factor usage of other enterprises. Thus, although each enterprise may produce under constant returns to scale, locating in close proximity generates external increasing returns to scale from which they can all benefit.[3] In theory, there is an optimal level of agglomeration in an area up to which externalities are positive. Beyond this optimal level, 'diseconomies of scale' or 'negative externalities' are generated, which carry negative consequences for individual enterprises.

There are two types of agglomeration economies: localisation and urbanisation economies. In a broad sense, localisation economies accrue solely to enterprises that belong to the same industry and the same geographical area (i.e. 'clusters') and urbanisation economies to enterprises that belong to the same geographical area (i.e. cities) but carry out different economic activities (Rosenthal and Strange, 2004). In the UE literature, a cluster is defined as a group of enterprises that produce similar goods or services and that are located in close proximity. Porter (2000, p. 16) defines clusters as "geographically proximate groups of interconnected companies and associate institutions on a particular field linked by commonalities and complementarities". Under this definition, not only physical proximity and activity relatedness are necessary for localisation economies to arise, but also some degree of interrelations between enterprises that go beyond market exchanges, which can be mediated by support institutions. Duranton *et al.* (2010) have argued, however, that industry definitions are enough to identify enterprises in related activities and that consequently 'cluster effects' are basically equivalent to localisation economies.

What are the sources of these agglomeration economies? The UE literature has focused mainly on three 'supply-side' mechanisms, initially identified by Alfred Marshall: greater access to specialised inputs; labour market pooling; and knowledge and technological spillovers. The overwhelming majority of evidence on the existence of these supply-side mechanisms comes from developed countries (Rosenthal and Strange, 2004; Ellison *et al.*, 2010) and the scarce evidence for some industries in developing countries is based on studies considering only formal-sector enterprises (Duranton, 2008; World Bank, 2009; Henderson, 2010). The study of these mechanisms is framed in a voluminous literature on the benefits of diversity and local knowledge spillovers in cities within the fields of economic geography (Audretsch and Feldman, 1996), new industrial spaces (Saxenian, 1994; Scott, 2004), innovative milieux (Camagni, 1991) and regional systems of innovation (Cooke, 2001).

Nevertheless, the focus on supply-side mechanisms has been made to the detriment of other equally plausible explanations for observed agglomerations, such as demand-side mechanisms associated with reduced consumer search costs. The distinction between different underlying mechanisms is important, however, because they have very different effects on the composition, complexity, growth trajectory of clusters, and enterprise outcomes such as productivity and profits. Demand-driven agglomerations give way to negative externalities arising from congestion and rising input prices more quickly than supply-side agglomerations (McCann and Folta, 2009). Furthermore, demand-driven agglomerations are particularly sensitive to the decreasing quality of agglomeration that follows from the adverse selection problem described by Shaver and Flyer (2000), in which 'stronger' enterprises (i.e. those with the best technologies, human capital, training programmes, suppliers or distributors) are crowed out by 'weaker' enterprises because stronger enterprises cannot appropriate the benefits of clustering and thus have no incentives to remain clustered.

Besides being explained by supply and demand mechanisms, agglomerations can be the result of enterprises seeking proximity to fixed factors, such natural endowments or public goods (Rosenthal and Strange, 2004). An important difference is that agglomerations explained by these factors are not expected to produce any gains for individual enterprises (Ellison *et al.*, 2010). Additionally, underlying mechanisms may be entirely absent if clusters are the result of factors such as historical accidents, metropolitan expansion and government regulations that rule out spaces within metropolitan areas for certain types of enterprise (Chakravorty *et al.*, 2005). In these cases, it is possible that enterprises remain clustered even when facing diseconomies of scale.

### 2.2 Definition and Scope of the Concepts of 'Informal Enterprise' and 'Informal Sector'

In this commentary, the unit of analysis is the (formal or informal) enterprise, because ultimately it is enterprises—as opposed to individuals—to which reference is made when speaking of concepts such as location, competition or spillovers. Furthermore, the enterprise is the productive unit where decisions are made regarding production and location. In what follows, the term 'informal sector' refers to the group of all informal enterprises. The 'informal economy' is a more general term comprising both informal employment in informal enterprises (and these informal enterprises are grouped in the 'informal sector') and informal employment outside informal enterprises (ILO, 2002).

An informal enterprise, like any other enterprise, is an organisation that uses inputs to produce goods and/or services. From a purely definitional point of view, what makes an enterprise 'informal' is the fact that it operates under different legal constraints from its formal counterparts. These legal constraints vary from country to country and over time, and include the cost of laws and administrative rules covering "property relationships, commercial licensing, labor contracts, torts, financial credit, and social security systems" (Feige, 1990, p. 992). Whatever the reason why an enterprise is considered 'informal', the consequence for this enterprise is that it is *marginalised* from accessing the same pool of resources or participating in the same economic transactions as its formal counterparts. This, however, is not equivalent to stating that the informal sector is a marginal sector, in the sense that it has no linkages to the formal sector. Instead, the point is that marginalisation translates into a different set of constraints under which informal enterprises have to make decisions, including those that ultimately link them to the formal sector.

Marginalisation as a penalty can take many forms, such as the prohibition for informal enterprises to sign business contracts with private and public enterprises, not being elegible for government subsidies or being banned or evicted from certain locations. One clear example of marginalisation is in access to credit: informal enterprises are not eligible for (formal) credit. In the absence of other financing viable sources, informal enterprises cannot plan their capitalisation and expansion in the same way as formal enterprises. It follows that, regardless of the source of their 'informality', the majority of informal enterprises across the world share roughly the same characteristics: they are of (very) small size, have a short life, use (very) little capital, have (very) low productivity levels and often do not operate in an office or plant but within households or on the street (WTO and ILO, 2009).

## 3. Can Agglomeration Economies Arise from Informal Enterprises?

So far, the scarce UE literature on the informal economy and urbanisation (Overman and Venables, 2005; Duranton, 2008) has candidly used 'successful' cases (cotton knitting industry of Tirippur, southern India; shoe production in Novo Hamburgo, Brazil; the 'magazine' in Kumasi, Ghana) as examples of the potential that the informal economy has in generating agglomeration economies. In this commentary, it is argued that this approach so far has been incomplete and misleading for two reasons.

The first reason is that the fragmented evidence from these case studies represents the exception and not the rule regarding the location patterns of informal enterprises. It is indeed implausible that all informal employment (which accounts for more than half of total urban employment in most cities in developing countries) occurs in successful clusters, if only because the success of an informal cluster imposes a natural limit to its size through higher rents and prices.[4] Besides, the policy advice of replicating successful informal enterprise clusters would be pretty much irrelevant for most cities—especially poor ones—if the success of these few cases rested on specificities (Robinson, 2006; Gordon and McCann, 2000).

The second reason is that, in the UE literature, clusters of informal enterprises seem to be paired with industrial districts. The fact that some of the characteristics of clusters (artisan traditions, flexible labour supply, family and kinship ties) can be found in some informal enterprise clusters does not qualify them automatically as industrial districts (Amin, 1994). Furthermore, according to Kesidou and Szirmai (2008), the existing industrial cluster literature for developing countries does not make a clear distinction between knowledge advantages and cost advantages of clustering, even though the former are absent in clusters where the fierce cost competition among enterprises limits the scope of knowledge spillovers. Indeed, most characteristics of the textbook industrial districts of Italy, Germany and Japan, such as co-operation, vertical disintegration and institutional networks, are likely to be entirely absent from groups of co-located informal enterprises in developing countries. The fact that to date there are no studies identifying informal clusters in the broader sense defined by Porter (2000) should come as no surprise if the benefits of informal enterprise clusters, if present, pertain exclusively to cost advantages (Visser, 1997).

Instead of focusing on what informal enterprise clusters should be, an alternative is first to understand them for what they actually *are*. An effort could be made to understand the actual spatial distributions of informal enterprises in different economic sectors within urban areas of different sizes, and the logic behind such distributions. Because of their small size, informal enterprises can be expected to cluster (Scott, 1988; Rosenthal and Strange, 2004; Chakravorty *et al*., 2005), but it is important to distinguish different rationales behind clustering.

The first step in this direction is to establish whether informal enterprises display a tendency to cluster, in which industries this tendency is stronger, and where this clustering takes place. For enterprises producing non-tradable goods and services, or manufacturing goods that are only sold locally, observed agglomerations are likely to be the result of demand-driven sources. In these cases, possible agglomeration economies should be evaluated against the background of the negative effects of demand-driven agglomerations, especially because these are more likely to arise in activities with small entry barriers. On the other hand, establishing *where* clustering takes place is of relevance in understanding other factors that do not constitute endogenous explanations for localisation economies. Indeed, regulations and zoning, or the existence of a public good that attracts a particular type of informal activity, may imply a higher or lower-than optimal level of clustering, bearing a direct effect on the performance of individual informal enterprises.

Besides empirical evidence, theoretical models could explore, for instance, why informal enterprises may continue to agglomerate despite possible diseconomies of scale at the enterprise level generated by excessive agglomeration. In this sense, the use of concepts such as 'exit' can be revisited, now that for many informal producers facing diseconomies of scale 'exiting' may not be an option, or the alternatives could be very well limited to open unemployment or entry into another highly competitive, congested sector.

## 4. Can Agglomeration Economies Arise from the Interaction between Formal and Informal Enterprises?

Agglomeration economies may arise from the interaction between formal and informal enterprises along the value chain, through: backward linkages, where informal enterprises obtain inputs from formal enterprises; and, forward linkages, where informal enterprises supply intermediate or final goods and services to formal enterprises, undertake part of the production process of formal enterprises through sub-contracting, or distribute formal goods.

What is 'known' so far regarding agglomeration economies generated from the interaction between formal and informal enterprises in the context of the UE literature is described by Overman and Venables

> The informal sector often plays an important and visible role in the case study literature on clusters in developing countries. For example, Chari (2004) in his work on the knitwear cluster in Tiruppur paints a vivid picture of the journey taken by cotton thread through the various milling operations, dyeing firms and fabrication units. *Formal and informal sectors play their part along the way* as independently owned bullock carts shuttle yarn and knitted cloth between knitwear companies and fabrication units. To assume that *no agglomeration externalities exist for Tiruppur's informal sector and for informal firms more generally is surely inappropriate* (Overman and Venables, 2005, p. 20; emphasis added).

What this view suggests is that, because informal enterprises participate in value chains, they *must be* benefiting from agglomeration externalities. For this to be true, the relationships between formal and informal enterprises along the value chain must be symmetrical and non-hierarchical, so that informal enterprises can fully capture their returns—which in any case would only happen if informal enterprises have the ability to *absorb* these agglomeration externalities.

However, this is just one possibility and, on a close look at the literature on value chains and informal enterprises, a rather unrealistic one. Empirical evidence overwhelmingly points to the fact that value chains in which informal enterprises participate have an uneven distribution of power and returns, and that symmetrical relationships within the value chain are a rare exception (Knorringa, 1994; Carr *et al.*, 2000; Nadvi and Barrientos, 2004; Khan and Kazmi, 2008). As stressed by the extensive industrial cluster literature for developing countries, power relationships along the value chain depend on many factors, such as the size of enterprises, the type of productive activity and the level of independent access to external markets and suppliers. Furthermore, external developments such as increased competition brought about by globalisation can modify power relationships, so that even informal enterprises that have managed to secure their returns within the value chain can rapidly lose this position (Schmitz, 1993; Nadvi and Barrientos, 2004). Under asymmetric power relationships, it may even be the case that agglomeration externalities are generated for formal producers *at the expense of* informal producers.

A particularly relevant case in this regard is that of sub-contracting from formal enterprises to informal enterprises. Another plausible 'vivid' picture of a journey can help to illustrate this: the journey along the buyer-driven clothing or footwear value chain starts from a large formal enterprise that, in search of the cheapest labour available, contracts with a local intermediary who then contracts home-based informal enterprises. The informal enterprises then perform labour-intensive tasks with materials given to them.[5] What kind of agglomeration economies are in store for an informal enterprise that has no contact whatsoever with the formal enterprise, has its home-based workers working in isolation, has to pay for all production-related costs such as energy consumption and machinery maintenance and employs family workers at very low wages? Although there are possible efficiency gains in terms of labour cost savings and greater flexibility in the face of demand fluctuations for local formal enterprises (Scott, 1988),[6] the existence of agglomeration externalities benefiting informal enterprises is definitely not granted.

Additionally, sub-contracting can result in larger spatial segmentation within cities, with informal activities taking place in peripheral residential zones and formal activity in industrial and commercial zones. Informal enterprises working under sub-contracting have large incentives to operate in household locations, where they can save on rent and energy costs (Daniels, 2004), and few incentives to seek proximity to input suppliers and final consumer markets because these are provided by the contracting company or an intermediary.

More generally, it is unclear whether urbanisation economies accrue to informal enterprises if they effectively operate in 'islands' within the city. Isolation can also be the outcome of the inability of informal enterprises to bid for rents in more central locations or from government regulations, and can be worsened by discrimination (Robinson, 2006) or poor infrastructure provision in lower-income areas resulting from biased preferences of local élites (Henderson, 2010; Barca *et al.*, 2012). If isolated, informal enterprises are effectively confined to a more limited pool of workers, inputs and knowledge than the larger (and perhaps better) one available in the very same urban area.

## 5. Understanding Agglomeration Economies *during* Economic Development

### 5.1 On Structural Segmentation and the Informal Economy

In analysing the role of the informal economy in generating agglomeration economies, the UE literature has relied heavily on the market rationality view (Piore and Berger, 1980), under which there are no real structural differences between formal and informal enterprises given that the economy is conceived as a continuum where the transition from one point in the distribution to another is in principle possible and smooth. The opposite view is conceiving the informal economy as a system of subordination and exploitation (Moser, 1978), where informal enterprises are so helplessly condemned to their status, that informality is not expected to disappear with economic growth.

Assuming either view closes the possibility of exploring mobility, which is at the heart of the development process of a country. An alternative is conceiving the economic system as divided segmentally and not continuously. Under this conception, according to Piore and Berger (1980, p. 2), "various segments of society organize around different rules, processes, and institutions that produce different systems of incentives and disincentives to which individuals respond".

This structural segmentation conception gives more substance to the 'formal/informal' division and can also be applied to the existence of 'traditional' and 'modern' segments within the informal economy (Fields, 2005; Ranis and Stewart, 1999). Traditional informal enterprises are associated with involuntary subsistence activities and constitute 'last resort' options for workers facing open unemployment. In contrast, modern informal enterprises, associated with the more dynamic side of the informal economy, are the result of deliberate choices of entrepreneurs to avoid costly regulations of setting up businesses in developing countries (de Soto, 2000; Maloney, 2004).

### 5.2 Agglomeration Quality Asssesment

In order to align policy recommendations with the reality of cities in developing countries, a shift in focus from the broad (and often vague) concepts of 'agglomeration' and 'informal economy' as currently used in the UE literature is proposed. As an alternative, this commentary puts forward the concept of *quality of agglomeration*. This concept breaks free from the view that all enterprises contribute to and benefit from agglomeration economies on the same way. Here, not only contributions to agglomeration externalities are asymmetric across enterprises (Shaver and Flyer, 2000), but enterprises have different capacities to appropriate agglomeration benefits. Furthermore, the productive system of cities in developing countries is understood as composed *integrally* by both formal and informal sectors. Just as the success of an urban system should not be evaluated exclusively in relation to the cities at the top of the hierarchy (Barca *et al.*, 2012), the effects of agglomeration in cities in developing countries should not continue to be evaluated solely on the basis of evidence for the formal sector. Nor should the Panglossian view that agglomeration externalities always benefit informal enterprises be held anymore.

In a low quality of agglomeration scenario, an important number of enterprises in an industry or urban area are unable to contribute to, or benefit from, agglomeration economies. Thus, when the quality of agglomeration is low, an industry or urban system that generates agglomeration benefits from which some enterprises benefit can be consistent with an increasing number of unproductive enterprises and declining incomes.[7] This may be so because, despite being in an agglomeration, a large segment of enterprises do not benefit from the presence of other enterprises in the same industry or urban area, or even make a negative contribution to agglomeration effects. This could be the result of: the inability of enterprises belonging to this segment to avoid markets where diseconomies of scale are very large; the existence of marked spatial segmentation within the city; and, situations of high asymmetry of power in the value chain where 'exploitative' linkages between enterprises in different segments are the rule (Moser, 1978; Tokman, 1978). As an example, a low-quality agglomeration is characterised by a large and growing number of traditional informal enterprises in congested industries, a relatively small modern informal segment, a very concentrated formal economy, abundance of home-based informal enterprises and poor connectivity between lower-income and other areas of the city.

Conversely, in a higher-quality agglomeration scenario, an important (and increasing) number of enterprises in different segments contribute to and benefit from agglomeration economies. In this case: there is mobility from congested industries towards those where there is potential for positive externalities; enterprises have relatively good accessibility to labour and intermediate and final consumer markets, regardless of their type; and, linkages between enterprises are growth-enhancing, so the potential benefits of knowledge and technical spillovers are maximised. In such an urban economy, one would also expect to see an increasing number of (growing) informal enterprises willing to formalise in order to have the opportunity to access the same resources as formal enterprises (for example, credit) and make the jump into higher-quality markets.

Assessing the quality of agglomerations in specific industries and urban areas would then require (re)building a 'geography of production' (Scott, 1988) that includes both formal and informal enterprises, and analysing its evolution through the process of economic development. It is necessary then to identify what types of productive activities formal and (modern and traditional) informal enterprises undertake, where they locate and what types of linkages exist between them. Ultimately, a comprehensive theory linking these elements could explain how the intertwined relationships between formal and informal activities are reshaping the urban space in developing countries.

## 6. Conclusions

Throughout this Critical Commentary, the shortage of theoretical and empirical studies integrating the informal economy in the study of the agglomeration effects of urbanisation in developing countries has been underlined. This commentary has shown that the UE literature has so far been misleading because it has been limited to cherry-picking case studies to paint a very optimistic yet unrealistic picture of agglomeration economies arising from the informal sector and benefiting informal enterprises. The *actual* spatial logic of informal enterprises in urban areas, and the *actual* potential for agglomeration economies accruing formal and informal enterprises in cities in developing countries, are still waiting to be addressed.

The usefulness of the analytical tools and existing theories of the UE literature cannot be dismissed, as they can certainly aid our understanding of the role of the informal economy in urban areas in developing countries. The departing point, however, should be a neutral, objective view of agglomeration that is open to explore both its positive and negative consequences. Given that different explanations for clustering may be more or less applicable to activities that are different in nature (Chakravorty *et al*., 2005), much more research is needed on the actual drivers of informal enterprise agglomerations (arising from different sources) and on the types of external economies (both positive and negative) informal enterprises deliver in the face of their inherent restrictions. This could be done by combining theoretical modelling that is more sensitive to the actual restrictions faced by informal enterprises with empirical studies relying on the use of survey and census geocoded data for formal and informal enterprises.

The importance of the informal sector and its persistence even in growing developing economies are so prevalent that talking about agglomeration effects in such countries should no longer be done solely from the perspective of the formal sector. Neither can it be done while assuming that informal activity happens in a vacuum with no repercussions on the entire economic system, or that 'trickle-down' effects always operate. Contrary to what the UE literature has so far assumed, the fact that informal enterprises have linkages with formal enterprises does not mean that informal enterprises are generating and appropriating agglomeration economies. The potential to do so critically depends on other factors, such as the type of linkages connecting formal and informal enterprises, and the effective access to resources and markets in the city. It follows that the study of agglomeration economies should be done in tandem with a deeper understanding of the complex and changing geographies of production resulting from the co-existence of formal and informal enterprises in urban areas.

From a policy perspective, the mantra of 'promoting agglomeration economies' is an empty statement when the particular level of development of a country, the composition of its informal economy and the types of linkages between the formal and informal sectors are ignored. Recognising this is important because unfounded generalisations can put policies on the wrong track. For instance, in a recent paper, Venables (2010) advises the development of clusters of export-oriented manufacturing in coastal cities in Africa by making reference to great potential gains derived from agglomeration economies. Although the informal sector absorbs most of urban employment in many African countries, there is no explicit reference to the role of informal enterprises in such a policy design. If the ultimate goal of policies is to promote inclusive economic development, a better understanding of all (good and bad) possible scenarios is needed before such claims can be made.

This Critical Commentary has put forward the idea that the quality of agglomeration, as opposed to the extent of agglomeration, should be the departure point when designing policies. The quality of agglomeration can be assessed based on the degree of mobility of enterprises between industries offering potential for agglomeration economies, the level of asymmetry in access to markets within the city, and the types of linkages between different types of enterprises. These are just initial suggestions for a future research agenda on the identification of different types of agglomeration and the study of the consequences of agglomeration quality levels on formal and informal enterprises.

## Notes

1. As an example, even in a careful reading of The World Bank's World Development Report 2009 (World Bank, 2009), which relies heavily on the UE literature, it is challenging to find the words 'informal sector' or 'informal economy', Bryceson *et al.* (2009) also point out this omission in their critical commentary of the WDR 2009.
2. A recent study on agglomeration and the informal sector in India (Mukim, 2011) focuses on the opposite question—namely, what is the role of agglomeration economies in *attracting* informal manufacturing activity? In the view of the author, this is a relevant question because "the contribution of the informal sector to economic growth and employment makes it a potent tool in influencing regional economic policy" (Mukim, 2011, p. 40), so governments are willing to *encourage* the location of informal activity in their regions.
3. Note that here agglomeration economies refer to the positive consequences of agglomeration rather than to agglomeration *per se*. Another type of agglomeration externalities which will not be touched upon in this commentary are consumption externalities, or the positive effect of the availability of more varieties on consumers' utility.
4. This seems to be the case in the 'successful' Gamarra cluster. According to Nadvi and Barrietos (2004, p. 23): "producers [of the cluster] were an 'elite' amongst the poor, with the high rents in Gamarra acting as a barrier to entry to the cluster for poorer entrepreneurs and newer migrants".
5. Statistics on the number of informal home-based workers are scarce, but some examples provided by the ILO (2002) from the early to the mid 1990s are illustrative of its high incidence: as a percentage of non-agricultural employment, home-based work represented 66 per cent in Benin, 26 per

cent in Guatemala, 16 per cent in India, 17 per cent in Mexico and 15 per cent in Kenya.

6. Indeed, if sub-contracting to local informal enterprises is done by international enterprises, there would not be any efficiency gains for local formal enterprises.
7. This can be parallelled with the finding by Keyfitz (1982) that growth in the form of an expanding middle class is consistent with an increasing number of poor.

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