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Urbanization and (In)Formalization

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Abstract

Two of the great stylized predictions of development theory, and two of the great expectations of policy makers as indicators of progress in development, are inexorable urbanization and inexorable formalization. Urbanization is indeed happening, beyond the "tipping point" where half the world's population is now urban. However, formalization has slowed down significantly in the past quarter century. Indeed, informality has been increasing. This disconnect raises a number of questions for development analysis and development policy. Is the link between urbanization and formalization more complex than what had been thought? What does this mean for policy? The first core section of this paper asks what exactly is meant by formality and informality. The second core section turns to processes of urbanization and asks how these processes intersect with and interact with the incentives to formalize. The paper examines why cities attract the informal sector and the role that urbanization plays in growth and job creation through both the formal and informal sectors. Cities generate agglomeration benefits in the informal sector, perhaps more so than for the formal sector. The third core section is devoted to policy. At the current conjuncture, agglomeration benefits make a strong case for urbanization as an integral part of development strategy, but concerns about jobless growth and about urban poverty require a focus on the informal sector.

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Urbanization and (In)Formalization

By

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1. Introduction

Inexorable urbanization and formalization have been the expectation in the development discourse. The two are expected to proceed hand in hand. Indeed, measures of urbanization and formalization have been proposed and used as indicators of development itself. However, while urbanization has proceeded apace in developing countries, formalization has slowed down significantly in the past quarter century. This disconnect raises a number of questions for development analysis and development policy. Why did we expect urbanization and formalization to go together in the first place? Is the link between urbanization and formalization more complex than what we had earlier thought? What then explains the recent disconnect between urbanization and formalization? Is formalization a reasonable policy goal? Might urbanization policies and formalization policies be in conflict with each other? If so, what can be done to resolve these conflicts? These are the questions addressed in this paper.

The paper has three core sections. The first section asks what exactly is meant by formality and informality. It argues that part of the policy confusion on urbanization and formalization arises from the multiple concepts of informality that abound—ranging from poverty itself, through small scale of enterprise and lack of maintained written accounts, to whether laws and regulations are complied with. The section proposes a definition of formality that relates activity to state regulation. It also asks why informal sectors are large and why formalization may have stalled.

The second core section turns to processes of urbanization and asks how these processes intersect with and interact with the incentives to formalize. It argues that there are two standard mindsets in the development discourse—one which expects urbanization to lead to formalization, and one which expects urbanization to be associated with increased urban informality. The section looks at the historical origins of these mindsets in the literature, and traces their development to the modern literature. In particular, it examines the treatment of informality in the discussion of urbanization, structural transformation, and agglomeration externalities and finds it to be somewhat lacking. It explores the possibilities of how such an integration of agglomeration, urbanization and formalization might be attempted.

The third core section is devoted to policy. Each view of how urbanization feeds to formalization has its distinctive policy conclusions. Early views of industrialization as leading to an inexorable pull of the rural population into formal employment saw industrialization, urbanization and formalization as being the same thing, and something to be encouraged by policy. Later views of rural-urban migration, as leading to a translation of rural poverty into urban poverty in the informal sector, coincided with caution on urbanization and greater support for rural development. We now find ourselves at a conjuncture where job creation and agglomeration benefits make a strong case for urbanization as an integral part of development strategy, but concerns about urban poverty in the informal sector are folded into general concerns on congestion costs that run counter to such a policy stance. The section then considers whether there are policy packages that can harvest the benefits of density that urbanization can offer, while managing the downside. The response to urban informality turns out to be an important part of such a policy package.

2. Formality: Concepts, Measurement and Trends

2.1 Concepts

The terms formality and informality are very commonly used in the development discourse. Technical and policy discussions are replete with this terminology and their usage dates back several decades. The use of the terms intersects with other terms such as "dual economy", or dualism between a "modern/capitalist" sector, and a "traditional" sector. And, of course discussions of the rural-urban transition also overlap with debates on informality. Given this attention in the literature, one might expect the evolution of a clear and consistent conceptualization and measurement of the formality and informality. However, as argued in Guha-Khasnobis, Kanbur and Ostrom (2006) and in Kanbur (2009), we do not find this at all. On the contrary, one finds a range of concepts, and associated measurements, which emphasize different features and characteristics. We begin this section with a brief overview of the evolution of the discourse in its various strands.

The earliest discussions of a "dual economy", and associated notions of formality and informality, although these terms were not used at the time, have elements which are still present in the mindsets of many analysts and policy makers. The Dutch anthropologist and colonial administrator Boeke (1943) envisioned a dualism between activities that came under the jurisdiction of colonial law, and the traditional sphere which was outside the ambit of these rules and regulations. The easiest way to capture this mindset is in terms of a wall separating the two domains. On one side of the wall was a domain ordered by regulations, on the other side of the wall was a domain which was not—with the implication that on that side lay disorder and disorganization. In later years Elinor Ostrom (1990) would question vigorously the notion that there was indeed disorder "on the other side". Her research revealed carefully crafted management mechanisms, once one looked more deeply into activities which lay outside the realm of conventional state regulation. But the tension between these perspectives persists in the policy discourse to this day.

The Lewis (1954) model of dualistic development has surprisingly little to say on state regulations. Rather, the dualism is between the capitalist mode of production where profits are maximized and factor payments are according to marginal product, and a traditional mode of production where they are not. In fact, in the Lewis perspective labor could not be paid its marginal product in the traditional mode of production because the marginal product of labor was zero—some other, "traditional", rules of output allocation applied. Although this traditional sector has typically been associated with the rural/agriculture sector in subsequent discussion, it is clear from Lewis (1954) that such a simple dichotomy was not necessarily what he had in mind. On the one hand he wrote about "capitalist agriculture" on plantations and the like. On the other hand for him elements of the "reserve army of labor" could equally be found in urban settings:

> "The phenomenon is not, however, by any means confined to the countryside. Another large sector to which it applies is the whole range of casual jobs-the workers on the docks, the young men who rush forward asking to carry your bag as you appear, the jobbing gardener, and the like. These occupations usually have a multiple of the number they need, each of them earning very small sums from occasional employment; frequently their number could be halved without reducing output in this sector. Petty retail trading is also exactly of this type; it is enormously expanded in overpopulated economies; each trader makes only a few sales ; markets are crowded with stalls, and if the number of stalls were greatly reduced the consumers would be no whit worse off…"

Although Lewis does not use the term informal sector, it seems clear that for him it would be identified with a sector where the marginal product of labor was close to zero.

The 1970s saw a flurry of analyses and publications. For economists, the paper by Harris and Todaro (1970) is seminal from a conceptual point of view. Although the term formality was not used in the paper, it starts by saying that a key feature of the model is a "politically determined urban minimum wage at levels substantially higher than agricultural earnings." Thus implicit in the formulation is a sector which comes under the purview of state regulations which underpin a statutory minimum wage. The point for Harris and Todaro (1970), however, is that this wage is not market clearing. Workers who are displaced then end up getting very low earnings in the urban sector—the "informal" sector. It is this sector which absorbs the excess, it is the sector which adjusts, and this is the mindset that informs at least some of the policy discourse on regulations today. Of course there is also rural-urban migration in the Harris-Todaro model, and we will take this up in the next section.

It is generally recognized that the term "informal sector" was introduced to the literature by the anthropologist Keith Hart (1973), as he described economic activity in an urban slum in Accra, Ghana:

> "The main message of the paper (Hart, 1973) was that Accra's poor were not 'unemployed'. They worked, often casually, for erratic and generally low returns; but they were definitely working… Following Weber, I argued that the ability to stabilize economic activity within a bureaucratic form made returns more calculable and regular for the workers as well as their bosses. That stability was in turn guaranteed by the State's laws, which only extended so far into the depths of Ghana's economy. 'Formal' incomes came from regulated economic activities and 'informal' incomes, both legal and illegal, lay beyond the scope of regulation. I did not identify the informal economy with a place or a class or even whole persons. Everyone in Accra, but especially the inhabitants of the slum where I lived, tried to combine the two sources of income. Informal opportunities ranged from market gardening and brewing through every kind of trade to gambling, theft and political corruption." (Hart, 2006)

Hart's conceptualization was echoed by the ILO (1972) and subsequent attempts to systematize the definition of informal activity for national statistical purposes followed very much the notion that entities recognized by the law were formal, those not so recognized were informal. Thus ILO (1993, para 5) provides the following definition:

> "They [informal enterprises] are private unincorporated enterprises….., i.e. enterprises owned by individuals or households that are not constituted as separate legal entities independently of their owners, and for which no complete accounts are available that would permit a financial separation of the production activities of the enterprise from the other activities of its owner(s)."

Since the 1990s, however, there have been moves to broaden the concept of informality from an enterprise based perspective as given above in ILO (1993), to a worker based perspective, focused on whether or not the worker receives certain mandated protections and benefits from the employer. The distinction is made between the informal sector and the informal economy, the former on an enterprise based definition, the latter on a worker based definition, so as to:

> "…extend the focus to include not only enterprises that are not legally regulated but also employment relationships that are not legally regulated or protected. In brief, the new definition of

the 'informal economy' focuses on the nature of employment in addition to the characteristics of enterprises." (Chen 2006, p. 76).

2.2 Measurement and Trends

With so many different conceptualizations of informality and formality, it is perhaps not surprising that getting nationally comparable estimates of informality is fraught with difficulties. Even if the basic concept is agreed--for example, registered enterprises--the detailed specification may vary across countries, since the requirement for registration will vary. Estimates produced by national authorities may differ from those produced by international agencies because of differing definitions and data sources.

Despite concerns about data and definitions, there is an agreement that the informal sector is large in most developing countries, and it is the overwhelming employer of labor in the non-agricultural sector. For developing countries as a group, more than half of all jobs—over 900 million workers—are in the informal sector (Jutting and de Laglesia, 2009). The sector is large not just in terms of employment, but also by the number of enterprises. Many more new establishments are created in the informal sector than in the formal sector.

Figure 1 plots the share of informal employment in total non-agricultural employment for 50 developing countries against their per capita income, using data from ILO KLIM, OECD, and World Development Indicators. For these 50 developing countries as a group, nearly half of the total non-agricultural jobs is generated in the informal sector. In India, it is much higher, at more than 80 percent of total non-agricultural jobs generated in the informal sector. It is also high in Sub Saharan Africa. The share of the informal sector is slightly lower in Latin America, with Brazil at 42% and Mexico at more than 50%. As a region, the lowest share of informal employment is in the Central & South-Eastern Europe, with the share of informal employment in Poland and Russia in single digits.

Figure 1: Jobs are concentrated in the Informal Sectors in developing countries

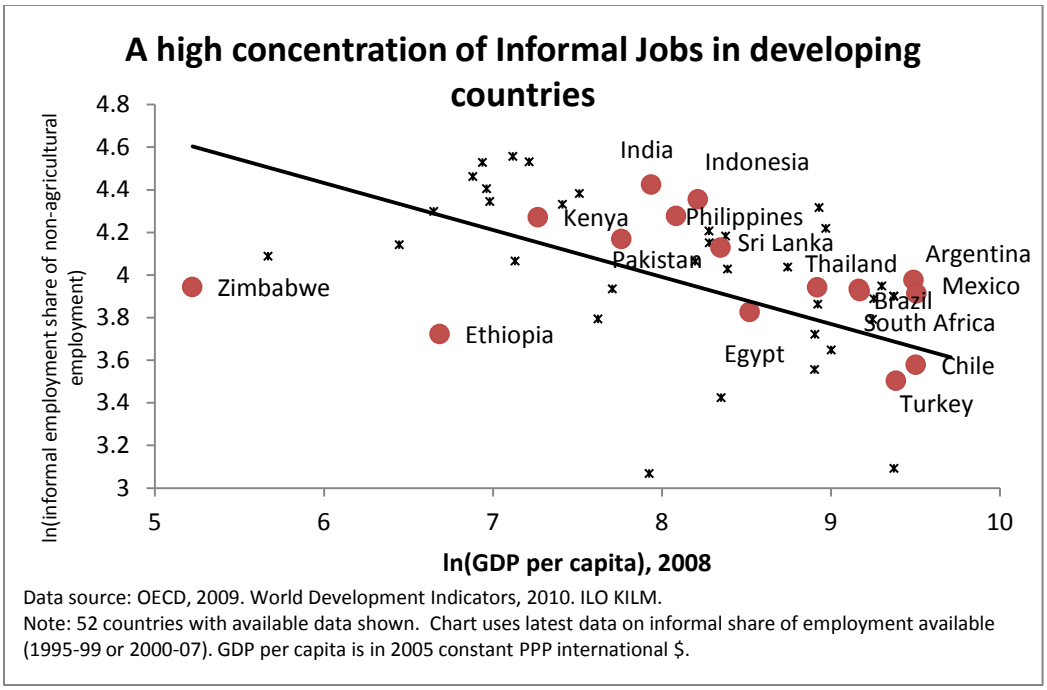
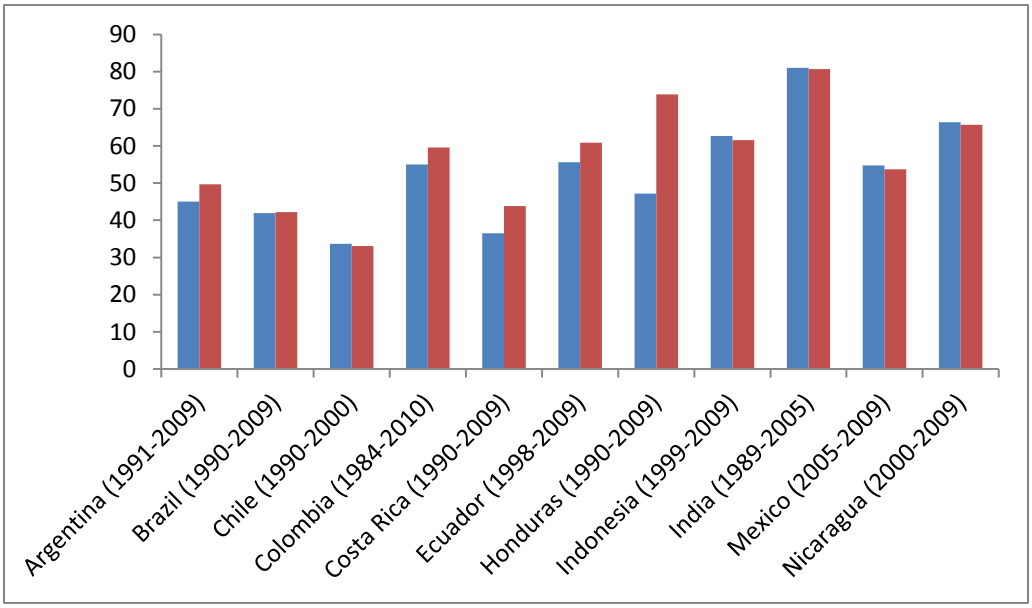


Figure 2: Informal sectors are exceptionally Persistent (Share of Population in Informal Employment, Earliest and Latest Data Points Available)



Data source: ILO KILM Table 8, "Employment in the informal economy". India: Annual Survey of Industries/National Sample Survey (Manufacturing only).

The relationship between the size of informal sector and development in Figure 1 is downward sloping. This is the stylized cross-section relaionship, established many times in the literature, which informs the mindset that predicts a decline in informality with development. But notice first of all that there is a

huge dispersion in the cross-country relationship. Second, however, the cross-section relationship is not found in recent time series data. Figure 2 compares the trend over time in the share of informal employment in total non-agricultural employment for a dozen developing countries. What is striking is that the size of informal sector has remained exceptionally persistent. It has not contracted over time. To the contrary, it seems to have increased, with a few exceptions.

It is this persistence of informality in the face of inexorable urbanization which frames the analytical and policy questions in this paper. The stubborn resistance to formalization is a challenge to analysts—why is it happening?—and to policy makers—what if anything can and should be done about it? We turn now to address these questions in the next two sections.

3. Urbanization and the Transition to Formality

Urbanization is proceeding inexorably in the world; formalization is not. Kanbur (2011) explores why informality might persist in many countries despite economic growth. Possible explanations include (i) weaker enforcement of regulations, (ii) weaker regulations and (iii) technological changes which make it not as inefficient as previously to avoid and evade regulations by operating a smaller scale. An additional factor could be the changing gender composition of the labor force (Ghani, Kerr, O'Conell, 2011c). The focus of this section, however, is on the connections and interactions between *urbanization* and formalization. Why might we expect the two to move together at all? Indeed, might there instead be a more intimate connection between *in*formality and urbanization? And what does the literature on agglomeration externalities and congestion costs have to tell us about the incentives of enterprises to become formal versus staying informal?

3.1 The Traditional Literature

Let us begin with the traditional literature on dualism and on the formal/informal divide reviewed in the last section, to see what different elements of it have to say about the connections between the rural-urban transition and the informal-formal transition. In Boeke's (1943) perspective, to the extent that the urban comes under the ambit of colonial regulation while rural does not, urbanization would be associated with increased formality. In the Lewis (1954) framework the key distinction is between capitalist and non-capitalist modes of production. As investment takes place in the capitalist (or "modern") sector, labor is drawn away from the traditional sector, which is the pool of surplus labor. It is only if we identify the traditional sector with rural and the capitalist sector with urban that urbanization and formalization go together in the Lewis framework. The Hart (1973) framework is focused within the urban sector, and informality is identified as those activities outside the reach of state regulation. In this setting urbanization would lead to an increase in informality if rural migrants went disproportionately into informal sector activities as envisioned by Hart. But migration is under explored in Hart (1973), although there are suggestions that recent migrants may be more likely to be found in the informal sector.

The Harris-Todaro (1970) framework, in the original and as developed by a large number of subsequent studies, comes closest to offering the possibility of a systematic link between rural-urban migration and informality. As will be recalled, in this model migration takes place in response to the differential between rural income and expected urban income—the urban sector offers the probability of employment in the formal sector where the wage is set at a high level, but also one minus this probability of

ending up with a very low income in the urban informal sector. Jobs in the formal sector are rationed and getting one of these high paying jobs is in effect to win a lottery, and losing the lottery is to end up in the informal sector.

With this setting, consider first of all the addition of a new job in the formal sector. If all other employment in the economy (urban informal and rural) is classified as informal, then the degree of informality will fall. But the increased employment in the formal sector will increase the probability of getting a high paying formal sector job and thus induce more migration, thereby increasing the absolute size of the urban informal sector. In full migration equilibrium when expected urban income is equated to rural income, the relative size of the informal sector in the urban area will remain unchanged. In this scenario, therefore, informality will either decrease or stay the same, depending on how it is measured.

Now consider a scenario where the formal sector wage is increased, holding constant formal sector jobs. Raising the formal sector wage will induce more migration and, since total jobs in this sector are fixed, a higher proportion of the now larger urban population will end up in the urban informal sector. If by informality is meant rural employment plus urban informal, of course the degree of informality will not change at all. However, if by informality is meant simply urban informality, and official definitions of informality mainly focus on the non-agricultural labor force that is informal, then the degree of informality will increase with urbanization.

The Harris-Todaro (1970) framework thus provides some insights into possible connections between urbanization and informality, but it is entirely worker based—the location decision of enterprises is not a consideration at all. And yet it is these decisions which are as important for the overall pattern of urbanization. And consideration of enterprise behavior links the discussion to the recent literature on agglomeration benefit and congestion externalities.

3.2 Enterprise Size, Geographical Density and Formality

Beall, Guha-Khasnobis and Kanbur (2010) discuss the key features of the urban context as proximity, density, diversity, dynamics and complexity. The origins of this discourse go back at least as far as Lewis Wirth (1938), who said that a city was a "relatively large, dense and permanent settlement of socially heterogeneous individuals." For economists, starting at least with Marshall (1920, pp 267-277), dense proximity of a diverse pool of skills has been the foundation of agglomeration benefits. However, disciplines such as sociology and anthropology have emphasized the problems of differences in close proximity—for example ethnic cleavages—and urban responses to these challenges. Of course, economists have also discussed the costs of agglomeration in the form of congestion costs. The recent literature has discussed the balance between agglomeration benefits and costs to arrive at optimal city concentration (Overman and Venables, 2011; Desmet, Ghani, O'Conell, Rossi-Hansberg 2012).

In this section we will focus on the interactions between enterprise size, city traits, industry traits, and agglomeration economies in the formal and informal sectors. We rely on a direct empirical link between enterprise size and formality. Larger enterprises are more likely to be formal, in the sense of coming within the ambit of state regulations and complying with these regulations (Levy, 2007). Regulations in many countries (for example, India) are written to apply to enterprises above a certain size (for example, enterprises with 10 or more workers). Furthermore official statistical definitions of formality (for example, the definition of the "organized sector" in India) are also related to size of enterprise.

With this background, let us now consider the incentives for large and small enterprises to locate within or outside densely populated areas, and what in turn affects these incentives. Larger scale manufacturing enterprises clearly need more land, which is more easily available in less densely populated areas. One possible cost of such a move out would be loss of access to public goods like electricity. However, technological advances mean that firms can have their own small scale generators without significant increase in cost, and in any event own generators can also guarantee supply in contexts where the public electric supply is erratic, as it is in many urban settings. Also large enterprises that operate in industries with mature technology seem to benefit less from agglomeration economies. To the extent that smaller scale firms are less vertically integrated, it helps to be in a dense ecosystem with forward and backward linkages of the supply chain in inputs and outputs in close proximity. And to the extent that larger firms are more likely to be vertically integrated, moving to a less dense location is likely to be less costly from this perspective.

Putting these arguments together, we can construct a rationale for why, ceteris paribus, smaller scale firms are more likely than larger firms to benefit from agglomeration externalities. This is only a tendency, of course—location decisions will be influenced by a number of considerations. However, the question arises—what may have changed in the last twenty years to sharpen the balance of advantage of smaller scale firms locating in more densely populated areas, and the reverse for larger scale enterprises?

One straightforward reason is the ongoing process of urbanization, which is increasing urban density. This puts larger firms at a disadvantage because of their greater need for land. At the same time, urban governance problems and urban infrastructure problems are well documented in the literature. As suggested above, larger scale firms are more likely to be able to escape these by locating in less dense areas in which they have control of power supply through private generators, and are perhaps not as hemmed in by land use regulations. Further, smaller scale enterprises are also more likely to benefit from density since they are more likely not to be vertically integrated. Related to this is another possible reason for migration to urban areas of smaller scale, and therefore more likely to be informal, enterprises. If technology is changing so as to make scale economies less important than they were in an earlier era, then this is an added force for informal enterprises to be able to survive. All else held constant, if technological change or the emergence of a supply chain make production possible at a smaller and less vertically integrated scale, and especially if the coordination across different elements of the previously integrated chain of production is made easier through the physical proximity that urban density makes possible, then we should not be surprised at what we have seen in the data on the persistence of informality. On this reasoning, we would expect the migration of smaller enterprises to urban areas, and the migration out of larger scale enterprises from urban areas. But what is the evidence for the validity of this reasoning? We turn now to some remarkable recent trends in India.

3.3 The Location of Formality in India

As already noted, the official definition of formality in India, from the enterprise perspective, turns essentially on enterprise size. In manufacturing, the “organized” sector includes establishments with more than 10 workers if the establishment uses electricity. If the establishment does not use electricity, the threshold is 20 workers or more. These establishments are required to register under the India Factories Act of 1948. The “unorganized” manufacturing sector is, by default, composed of establishments which fall outside the scope of the Factories Act.

India is the second fastest growing economy in the world, but it also has a very large informal sector. In the manufacturing sector, nearly 99% of enterprises and 81% of employment are in the unorganized sector. In the services sector, the estimated size of the unorganized sector ranges from 74% to 90% of employment, depending on the definition used.. The Indian economy has undergone amazing structural transformation during the last two decades, but the share of the unorganized sector has remained high (Ghani et al., 2011a, b). The employment share in the unorganized sector for manufacturing in 2005 is almost exactly the same as it was in 1989 at 81%. So the unorganized sector is also exceptionally persistent. India provides a good case study to examine how urbanization and formalization have interacted and evolved over time? Are formal sectors moving out of urban areas? Is informal sector moving into cities? Do cities generate agglomeration economies in the informal sector? Has the spatial allocation of plants improved across urban and rural locations?

Ghani et al (2012) examine the trends in the spatial location of organized and unorganized enterprises in India. They combine the enterprise data from the Annual Survey of Industries for the organized (formal) sector and from the National Sample Survey for the unorganized (informal). The organized manufacturing sector is surveyed by the Central Statistical Organization every year through the Annual Survey of Industries (ASI), while unorganized manufacturing establishments are separately surveyed by the National Sample Survey Organization (NSSO) at approximately five-year intervals. These surveys identify for each establishment whether or not it is in an urban or rural location. Establishments are surveyed with state and four-digit National Industry Classification (NIC) stratification. The authors note:

"On the whole, India's manufacturing sector became more urbanized, with the share of workers in urban areas rising from 33% of employees in 1989 to 41% in 2005 (Figure 3a). Urbanization growth was most dramatic from 1989 to 1994, but slowed down from 1994 to 2000. The urbanized employment share was basically flat from 2000 to 2005. This pattern of increasing urbanization was also present when looking just at manufacturing plant counts, but the opposite trend is observed for manufacturing output. The latter has increasingly moved towards rural areas".

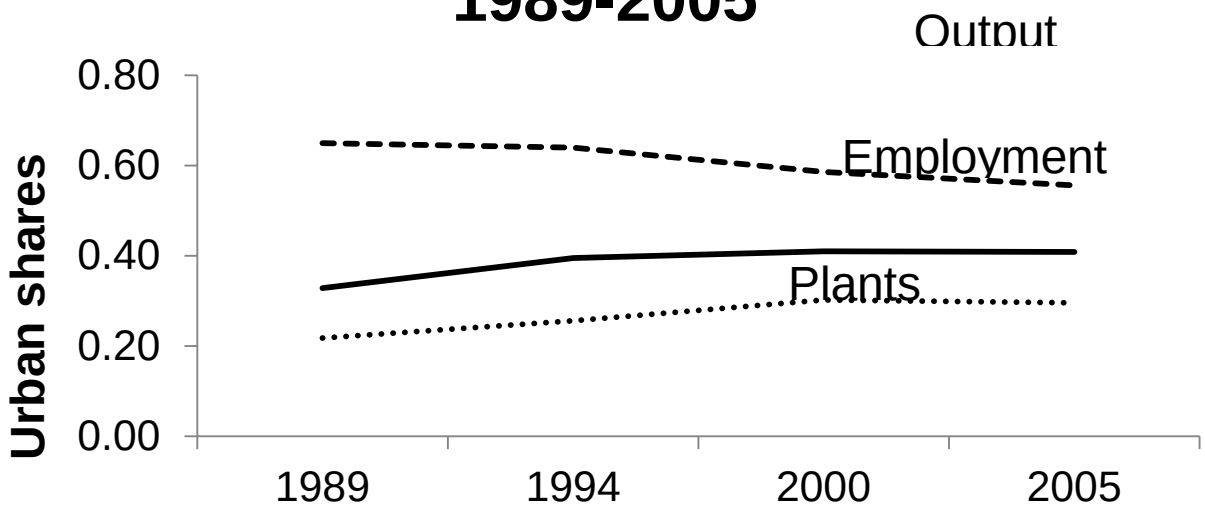
The differences in the relative movements of the organized and unorganized sectors, shown in Figures 3b and 3c, are striking. Specifically,

"Throughout the 1989-2005 period, the organized sector moved from urban to rural locations, with its urban employment share declining from 69% in 1989 to 57% in 2005. On the other hand, urban employment share for the unorganized sector increased from 25% to 37%. Since the unorganized sector accounts for about 80% of employment in India's manufacturing sector, the total urbanization level increased for the employment measure. Likewise, the organized sector accounts for over 80% of India's output, such that the aggregate output series instead becomes more rural" (Ghani et al. 2012).

The authors conclude that large firms in India with high capital and land intensity are more likely to locate in rural areas in districts. There is evidence to support this from both within- district and between-districts movements. They both tend to work in the same direction for the urbanization of the unorganized sector and the de-urbanization of the organized sector.

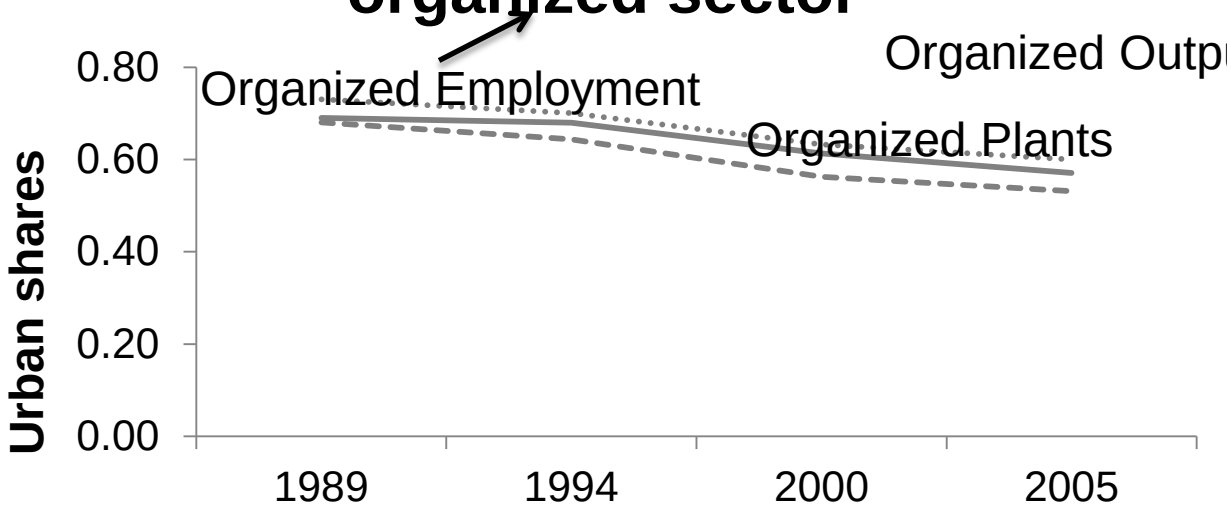
Could these changing patterns in the urbanization of informal sector and the de-urbanization of formal sectors be explained merely by changing definition of urbanization? The definition of an urban setting in India has been mostly stable since the 1961 census. India uses a more demanding set of criteria than most countries to define what is 'urban'. For example, substantial parts of U.S. metropolitan areas like Atlanta or Phoenix would be classified as rural in Indian statistical analyses because their population densities fall below 1,000 persons per square mile (Ghani et al, 2012).

Fig. 3a: India's urban shares, 1989-2005



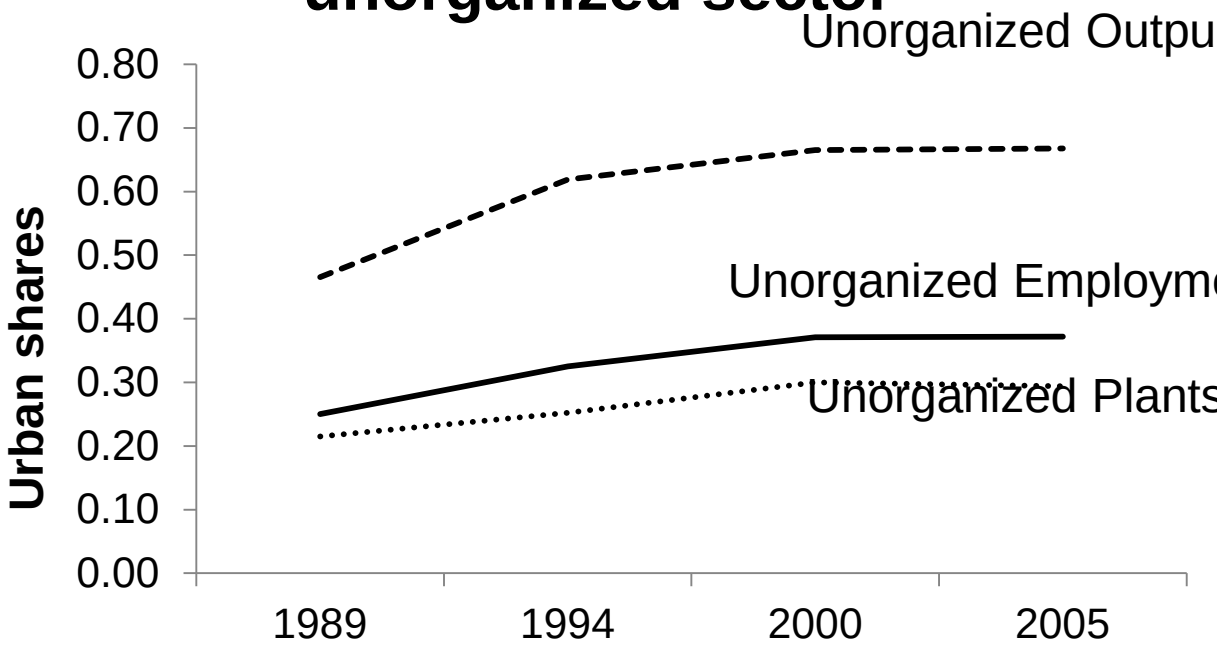
Notes: Figure plots urban shares of plants, employment and output for each year using survey data of plants from formal (organized) and informal (unorganized) manufacturing sectors in India. Source: Ghani, Grover, and Kerr, 2012

Fig. 3b: Urban shares in organized sector



Source: Ghani, Grover, Kerr, 2012

Fig. 3c: Urban shares in unorganized sector



Source: Ghani, Grover, Kerr, 2012

What attracts new entrepreneurs and workers to cities? Ghani et al (2011b) quantify the factors and traits of cities and industries that systematically predict stronger entry levels of new establishments in the formal and informal sectors. They use cross-sectional establishment-level surveys in 630 districts in India spread across 35 states/union territories. They quantify entrepreneurship as young firms that are less than three years old, and define entry measures through employment in these new establishments. They examine the role of demographic traits in cities (age profiles, population, population density), structural traits of cities (education of the local labor force, quality of local physical infrastructure, connectivity to major cities), business climate traits (stringency of labor laws, household banking conditions), and the impact of agglomeration economies in formal and informal sectors. They develop metrics that unite the incumbent industrial structures of districts with the extent to which industries interact through the traditional agglomeration channels (Marshall 1920). This conceptual approach has also been used to describe location choice decisions and city structures in several advanced economies. The first agglomeration channel is proximity to customers and suppliers, which reduces transportation costs and thereby increases productivity. The second is the Chinitz effect. Chinitz (1961) argued that the large, integrated steel firms of Pittsburgh depressed external supplier development. By contrast, New York City's much smaller firms, organized around the decentralized garment industry that then dominated the city, were better suppliers to new firms. The third channel is labor pooling.

Reproducing the results reported in Ghani et al. (2011b) Table 1A below

provides basic spatial results for the organized manufacturing sector. The first column includes just district populations, district-industry employments, and industry fixed effects. Not surprisingly, existing district-industry employment strongly shapes the

spatial location of entry in the organized sector: a 10% increase in incumbent employment raises entry employment into formal sectors by around 2%. In addition, a district's population increases entry rates with an elasticity of 0.5. Higher-order population terms are not found to be statistically significant or economically important.

Column 2 includes the district traits. Three factors stand out as discouraging entry of new plants into formal manufacturing sector in cities: high population density, strict labor regulations, and greater distance to one of India's ten biggest cities. The first pattern has been observed in many spatial settings, and is closely studied by Desmet et al. (2012) in India. The traded nature of manufacturing products allows more rural settings for firms, and manufacturers often seek cheaper environments than the wages and rents associated with high density areas. The second pattern connects with the earlier studies of India that argue strict labor laws reduce economic growth. These policies are associated with reduced entry even after conditioning on district-industry size. The final factor highlights that while organized manufacturers avoid the high costs of urban areas, they also avoid the most remote areas of India in favor of settings that are relatively near large population centers, likely to access customers directly or to connect to road transport and/or shipping routes. On the other hand, the education of a district's workforce is strongly linked to higher entry rates. This is consistent with the findings on USA. The elasticity for India is in fact stronger in economic magnitude, if not precision, than that evident in comparable studies of advanced economies.

Table 1B repeats these estimations for the unorganized manufacturing sector. Several distinct differences exist. First, local population takes a much greater role with unit elasticity in Column 1's simplest estimation. This greater connection of entry to the overall size of local markets almost certainly reflects unorganized entry being proportionate to market size and servicing local needs. Unorganized manufacturing clearly conforms much more closely to the overall contours of India's economic geography than organized manufacturing.

The other two district traits that are associated with strong entry rates are the strength of local, within-district physical infrastructure and the strength of local household banking environments. This contrasts with organized manufacturing entry, where education stood out. An intuitive explanation is that these patterns and their differences reflect the factors on which each sector depends most. Organized manufacturing establishments, for example, may have broader resources that reduce dependency on local infrastructure and household finance. Likewise, it is reasonable to believe that the unorganized sector depends less on educated workers than the organized sector(Ghani et al. 2011b).

Finally, measures of input/supplier strength and outputs/customer strength have a greater impact on employment growth for the unorganized sector than for the organized sector. Thus while agglomeration benefits exist in both formal and informal manufacturing sectors, empirically they appear to be stronger for the informal sector. Additionally, input cost factors are more influential in the location choices of small start-ups, while output conditions and labor markets are more important for large entrants.

Thus economic reasoning, and Indian evidence, would suggest that from enterprise based perspective the co-movement of urbanization and informality should not be a surprise. Similarly, a worker based perspective can also produce, for example in the Harris-Todaro framework, a co-movement of urbanization and informality. What does this mean for policy? We turn to this question in the next section.

Table 1A: Harnessing Entrepreneurship and Job Creation in Cities-Formal Manufacturing

	Base estimation	District traits	Full estimation	Adding consumption	Using log entry count
	(1)	(2)	(3)	(4)	(5)
	DV is log entry employment by district-industry				
Log of incumbent employment in district-industry	0.229+++	0.186+++	-0.028	-0.030	0.032+
	(0.043)	(0.040)	(0.048)	(0.047)	(0.018)
Log of district population	0.531+++	0.483+++	0.475+++	0.482+++	0.216+++
	(0.179)	(0.155)	(0.156)	(0.161)	(0.056)
District Traits:					
Log of district population density		-0.569+++	-0.563+++	-0.562+++	-0.197+++
		(0.088)	(0.080)	(0.079)	(0.029)
Share of population with graduate education		0.211+	0.235++	0.230++	0.078+
		(0.110)	(0.107)	(0.111)	(0.042)
Demographic dividend for district (age profiles)		0.605	0.567	0.535	0.271
		(0.458)	(0.446)	(0.468)	(0.177)
Index of infrastructure quality for district		0.018	0.096	0.086	0.015
		(0.100)	(0.094)	(0.097)	(0.038)
Strength of household banking environment		0.143	0.095	0.085	0.027
		(0.104)	(0.100)	(0.106)	(0.036)
Stringency of labor laws in district's state		-0.210+++	-0.161++	-0.157++	-0.095+++
		(0.070)	(0.064)	(0.065)	(0.023)
Log travel time to closest large city		-0.275+++	-0.241+++	-0.237+++	-0.091+++
		(0.090)	(0.083)	(0.083)	(0.031)
Log per capita consumption				0.152	
				(0.505)	
Local Industrial Conditions by Incumbent Firms:					
Labor market strength for district-industry			0.161	0.164	0.026
			(0.102)	(0.102)	(0.041)
Inputs / supplier strength for district-industry			0.485+++	0.485+++	0.154+++
			(0.098)	(0.098)	(0.043)
Outputs / customer strength for district-industry			0.388+++	0.387+++	0.167+++
			(0.140)	(0.140)	(0.057)
Chinitz small suppliers metric for district-industry			0.279	0.279	0.337+++
			(0.213)	(0.212)	(0.129)
Industry fixed effects	Yes	Yes	Yes	Yes	Yes
Observations	4843	4843	4843	4843	4843
Adjusted R-squared	0.128	0.166	0.218	0.218	0.279

Notes: Estimations quantify the relationship between district-industry employment in new establishments and local district conditions. District-level traits are taken from the 2001 Census. Industrial conditions are calculated from 2005-06 using incumbent establishments in the district-industry. Labor regulations are a composite of adjustment and disputes laws. Estimations weight observations by an interaction of district size and industry size, include industry fixed effects, and cluster standard errors by district. Non-logarithm variables are transformed to have unit standard deviation for interpretation. Source: Ghani, Kerr, O'Conell, 2011b

Table 1B: Harnessing Entrepreneurship and Job Creation in Cities-Informal Manufacturing

	Base estimation	District traits	Full estimation	Adding consumption	Using log entry count
	(1)	(2)	(3)	(4)	(5)
	DV is log entry employment by district-industry				
Log of incumbent employment in district-industry	0.163+++	0.123+++	-0.075++	-0.078+++	-0.040
	(0.031)	(0.029)	(0.029)	(0.029)	(0.026)
Log of district population	1.051+++	0.878+++	1.010+++	1.025+++	0.866+++
	(0.161)	(0.157)	(0.160)	(0.153)	(0.138)
District Traits:					
Log of district population density		-0.019	-0.044	-0.042	-0.044
		(0.070)	(0.068)	(0.073)	(0.057)
Share of population with graduate education		-0.002	-0.026	-0.079	-0.046
		(0.080)	(0.084)	(0.087)	(0.074)
Demographic dividend for district (age profiles)		0.954+++	1.053+++	0.770++	0.798+++
		(0.326)	(0.330)	(0.326)	(0.285)
Index of infrastructure quality for district		0.386+++	0.365+++	0.259++	0.325+++
		(0.096)	(0.097)	(0.104)	(0.086)
Strength of household banking environment		0.222+++	0.211+++	0.152+	0.193+++
		(0.080)	(0.080)	(0.082)	(0.071)
Stringency of labor laws in district's state		-0.007	0.000	0.020	0.030
		(0.069)	(0.069)	(0.066)	(0.062)
Log travel time to closest large city		-0.004	0.009	0.029	0.017
		(0.069)	(0.074)	(0.074)	(0.065)
Log per capita consumption				1.191+++	
				(0.365)	
Local Industrial Conditions by Incumbent Firms:					
Labor market strength for district-industry			0.263+++	0.271+++	0.228+++
			(0.075)	(0.075)	(0.067)
Inputs / supplier strength for district-industry			0.553+++	0.542+++	0.504+++
			(0.107)	(0.108)	(0.096)
Outputs / customer strength for district-industry			0.291+++	0.292+++	0.246+++
			(0.050)	(0.051)	(0.044)
Industry fixed effects	Yes	Yes	Yes	Yes	Yes
Observations	6451	6451	6451	6451	6451
Adjusted R-squared	0.195	0.233	0.264	0.267	0.294

Notes: See Table 1A.

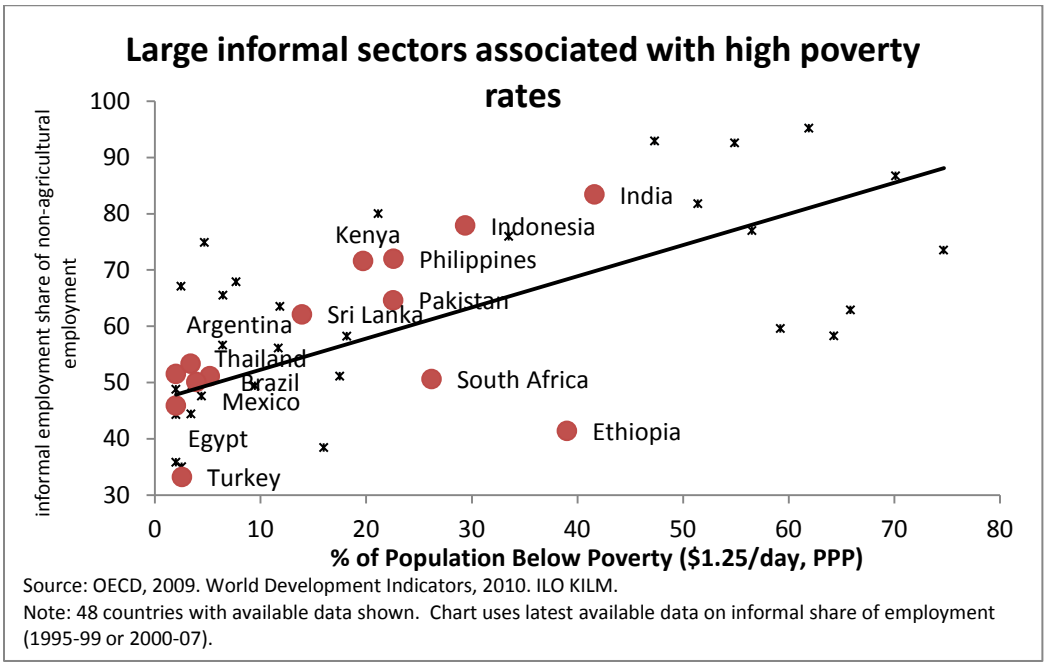
4. Policy Implications

4.1 Why Worry About Informality?

There are (at least) three reasons why informality is of concern in policy circles—it is associated with higher levels of poverty and vulnerability, lower levels of productivity, and lower contributions to fiscal revenue. Let us consider each of these in turn.

Figure 4 plots the share of informal jobs against poverty rates across countries. The line is upward sloping suggesting that a larger size of the informal sector is associated with higher poverty rates. The macro level association is confirmed by almost every micro level country specific study that looks at the association between poverty and informality. Most people who work in the informal sector are predominantly poor in income and in non-income dimensions. This is because informal jobs have low productivity, and certain groups, such as the young or women are over represented in the informal sector (Jutting and de Laglesia, 2009). In India, workers in the unorganized sector have a much higher incidence of poverty (20.5 %) than their counterparts in the organized sector (11.3 percent, NCEUS (2007)). Studies also find lower levels of achievement in health, education and other non-income achievements in the informal sector.

Figure 4: Strong Association between Informality and Poverty



Source: OECD, 2009. World Development Indicators, 2010. ILO KILM.
Note: 48 countries with available data shown. Chart uses latest available data on informal share of employment (1995-99 or 2000-07).

Certain caveats are in order. The links between working informally and being poor are not always simple. Recent empirical work (Chen 2006) has emphasized heterogeneity within the informal sector. On the one hand, not all jobs in the informal economy yield paltry incomes. Many in the informal economy, especially some self-employed, in fact earn more than unskilled or low-skilled workers in the formal economy. There is much innovation and many dynamic growth-oriented segments in the informal economy, some of which require considerable knowledge and skills. One of these is the fast-growing information and communications technology (ICT) sector in the large cities of India. There is also some evidence that

informal sectors have expanded in those districts in India where the formal sectors have expanded. Finally, in the spirit of the Harris-Todaro (1970) analysis outlined in Section 3, informal sectors in cities attract the poor people. They don't make them poor.

However, despite these caveats, it is the strong association between informality and poverty that is the driving concern of policy makers, and their chief worry is when they see persistence of informality despite rapid growth. In addition to the income-education-health dimensions of poverty, there is also the exclusion of the informal sector from the decision making processes of the city, and outright harassment by police and agents of government. The experiences of the Self Employed Women's Association (SEWA), which is a union of women who earn their living in the informal sector, are telling. As a recent publication notes:

> "Delhi is a place where people migrate in search of work. But as each day passes, people become invisible among the crowd and glitter. The less educated migrants find variety of work like labour work, ironing work, vending work, home based work, domestic work, driving rickshaw, etc and they earn well enough. With rapid development happening in all major cities of India, the poor are displaced ruthlessly. Similarly, the situation of street vendors is no different in Delhi. The street vendors are harassed by MCD [Municipal Corporation of Delhi], Police, Goons and Mafias, in the process of beautification, modernization and development…. The Goons and Mafias with support from Police and MCD set up the markets at various places and charged illegally for the space from the vendors. In desperation, vendors pay Rs 500-1000 to Goons or Mafias to make a living. Besides, MCD charge penalty from the vendors for setting up illegal markets. Thus, vendors are exploited by both, Mafias and MCD."[1]

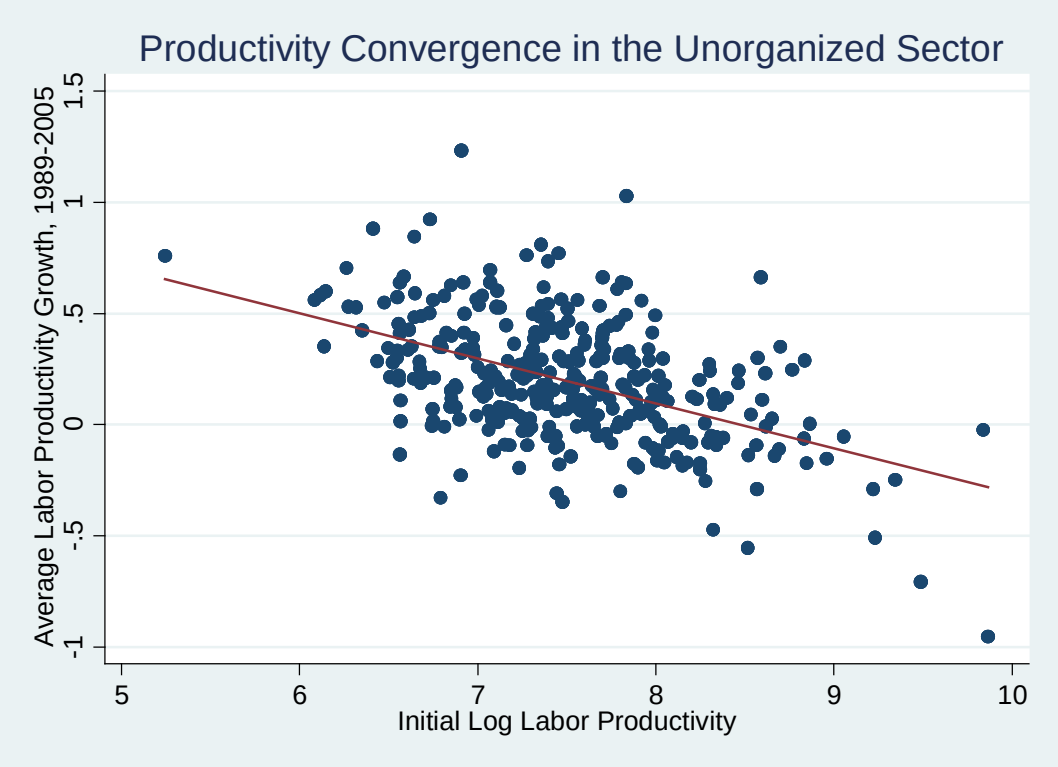
Along with lower levels of income, lower levels of productivity among enterprises in the informal sector are well documented (Jutting and de Laglesia, 2009). Most recently, careful work by Busso, Fazio and Levy (2012) for Mexico argues that Total Factor Productivity (TFP) is much higher in the formal sector than in the informal sector—so much so that "one peso of capital and labor allocated to formal and legal firms is worth 28% more than if allocated to illegal and informal firms, and 50% more than if allocated to legal and informal firms.". However, other studies have pointed out strong evidence for manufacturing convergence. In a cross-country study of 100 countries, using industry data for formal sectors, Rodrik (2012) finds that industries that start at lower levels of labor productivity grow faster.

Figure 5a, plots labor productivity levels in the unorganized industry at the district level in India. Each dot in the scatter plot reflects labor productivity in the unorganized industry in a district. The horizontal axis is the initial labor productivity in 1989. The vertical axis shows the growth of labor productivity in unorganized industry for that district for the period 1989-2205. A downward sloping line suggests that districts that started with a lower level of labor productivity in the initial period experienced a faster productivity growth rate in subsequent periods. But there is a lot of dispersion. No doubt, the pace of convergence will accelerate with better infrastructure, improved policies, and stronger institutions, as discussed earlier. The convergence in the unorganized manufacturing sector can have a huge impact on aggregate manufacturing convergence, given that more than 80% of manufacturing employment in India is in the unorganized sector. The impact of formal manufacturing on aggregate manufacturing convergence is reduced by its small share of employment.

[1] SEWA Newsletter No. 39, http://www.sewa.org/Thirty_nine.asp Accessed August 26, 2012

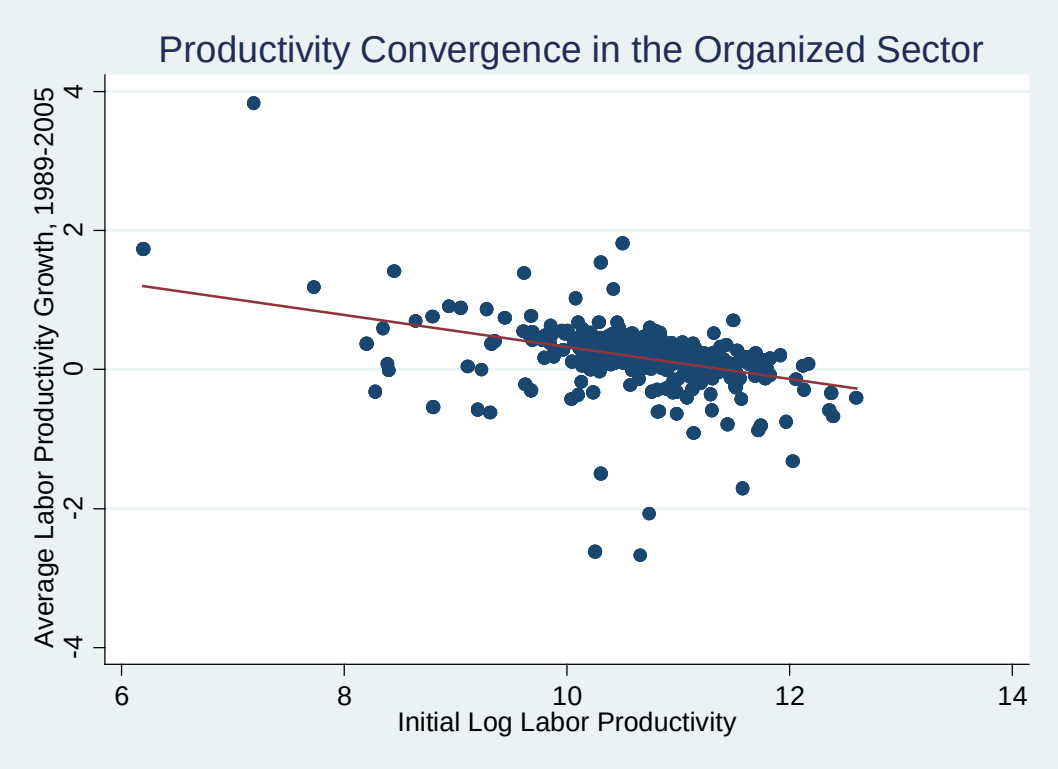
Figure 5b shows manufacturing convergence in the organized sector at the district level. Districts that started with lower levels of labor productivity in the initial period have experienced faster growth rates in subsequent periods in the organized sector. Manufacturing convergence in formal sectors can be faster due to the tradable nature of goods they produce, benefit of scale economies and better connectivity through cities into global production networks. So cities play a role in manufacturing convergence in both formal and informal sectors.

Figure 5a: Convergence in unorganized manufacturing industry in India, 1989-2005



Notes: The horizontal axis is the initial labor productivity of unorganized industry in a district in 1989. The vertical axis is the growth of labor productivity in unorganized industry in that district.

Figure 5b: Convergence in Organized manufacturing industry in India, 1989-2005



What about fiscal implications of the informal sectors? Policy makers worry about the fiscal consequences of a large informal sector since this sector is largely outside the tax net. Indeed, in some countries the statistical definition of informality of an enterprise is based on whether it is registered for tax purposes. Of course, if an exogenous shift in conditions brings more firms into the tax next, that is good fiscally. On the other hand, if there is an increase in informality, the fiscal policy suffers. The important question from a policy perspective, however, is whether policy measures could be taken to induce greater formality and greater revenue. The answer to this is not self-evident—and certainly it is not as simple as relaxing regulations so as to bring more firms into the formal sector. For example, for profits taxation Auriol and Warlters (2005) argue that there is a trade-off between restricting entry to the formal sector, which would raise taxable profits per firm, and increasing the number of formal sector firms by relaxing regulation. The argument is confirmed by an empirical analysis of regulation, taxation and informality for a cross section of 64 countries. In similar vein but focusing on tax collection, Keen and Mintz (2004), model tradeoffs in lowering tax threshold to bring in more firms into the VAT net: “Too high a threshold compromises the basic objective of raising revenue; too low a threshold may leave the authorities overwhelmed by the difficulties of implementation and impose excessive compliance costs on taxpayers.” (p. 559).

4.2 What Should Be Done about Informality?

The dominant policy perspective on informality can be illustrated by the following two quotes, the first from the World Bank and the second from The Economist:

> "There are various reasons why governments may be concerned about large informal sectors. These include potentially negative consequences for competitiveness and growth, incomplete coverage of formal social programs, undermining social cohesion and law and order, and fiscal losses due to undeclared economic activity. For most governments, these concerns outweigh any advantages that the informal sector offers as a source of job creation and as a safety net for the poor."[2]

> "Thanks largely to baroque regulation, half the labour force toils in the informal economy, unable to reap the productivity gains that come from technology and greater scale."[3]

Thus it would seem that the informal sector is a "problem" because of (i) low productivity, (ii) low contribution of fiscal resources and (iii) concentration of poverty, vulnerability and exclusion. Further, the major causes of informality are to be found in "baroque regulations."

The headline policy conclusion of the conventional wisdom is thus clear—informality is a problem, it is caused by overly strict regulation of the formal sector, and it can be solved by deregulation. However, we wish to sound a note of caution, especially given the stubborn persistence of informality the world over, even in the face of historically high economic growth rates when regulations have not necessarily been tightened—if anything, they have been relaxed. Yet, job creation in the formal sector has slowed leaving the informal sector to pick up the slack. If these trends continue the informal sector may need to be viewed not as a problem to be solved by "formalization" but as a sector in need of support to enhance the productivity of the poorest members of society.

Our focus in this paper has been not informality per se, but informality in the context of urbanization, and the lack of formalization in the face of rapid urbanization. Our discussion has shown that the persistence of informality is to be expected as urban formal sector jobs expand, since the expectation of securing these jobs pulls in far more migrants from the rural sector than there are formal jobs, with the surplus ending up in the informal sector. We have also shown that from an enterprise based perspective, it can be a perfectly rational response to stay small in size. This can be in response to regulations. But it can also be in response to rising urban density and to changes in technology which make operating at smaller scale less inefficient than was previously the case. If this argument has some validity, then informality caused by smallness of size is unlikely to disappear with urbanization. Indeed it is likely to grow.

The arguments in this paper suggest that caution about the conventional policy perspective is particularly warranted given the fact that the increase in informality in the last two decades has happened alongside rapid urbanization. Research on interaction between urbanization and informality is still at an early stage. Empirical evidence on why some cities attract more informal activity than others is still sketchy. While it is clearly the case that the "cost of doing business" is relevant (Levy, 2007), other factors can also be important. Agglomeration economies may be more important in fact for informal activities than for the

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[2] http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTSOCIALPROTECTION/EXTLM/0,,contentMDK:20224904~menuPK:584866~pagePK:148956~piPK:216618~theSitePK:390615,00.html Accessed June 28, 2012

[3] The Economist, September 9, 2010, http://www.economist.com/node/16990967 Accessed August 26, 2012

formal sector, and changes in technology may explain persistence informality despite unprecedented rates of economic growth.

The co-movement of informalization and urbanization juxtaposes concerns about growing informality, because of its association with poverty, with the policy drive to urbanize in order to reap agglomeration benefits. Is there a conflict, then, between the growth gains of urbanization and the possible poverty costs of informalization? Our answer is not necessarily. Rather, a policy package is needed which makes the best of urbanization's growth potential while addressing informality issues.

Let us begin by noting that alongside the benefits of agglomeration, the analytical and policy literature has also highlighted various agglomeration ("congestion") costs as well. There is already a discussion, then, of how to manage and mitigate these costs. The discussion addresses such issues as transportation and infrastructure, residential zoning and land use patterns more generally, and above all, urban governance (Ahluwalia, Kanbur and Mohanty, 2012). Among the issues raised in urban governance is how to tax rising land values in order to provide urban services which in turn could mitigate congestion costs of agglomeration. As our enterprise based discussion of informality has made clear, small scale firms in the informal sector benefit as much if not more from agglomeration externalities than larger scale firms in the formal sector. This is one reason why there has been a migration of informal enterprises to dense urban settlements, and a relative movement out of formal enterprises. Provision of urban services to these enterprises is thus as important as the usual focus on the formal sector.

As discussed earlier, informal sectors play a bigger role in job-enhancing effects of structural transformation. Formalization should not result in overly regulating it lest the sector's growth be slowed or incentive to remain informal increase. But not formalizing reduces the access of informal sectors to service delivery which is often linked to fiscal policies. So there are huge trade offs. That said, policy makers can consider reducing the cost of becoming formal and increase the cost of staying informal. To decrease the cost of becoming formal, tax structures and rates should be made simple. In addition, tax exemption and holidays should be reduced. Authorities could improve tax administration and implement a simple tax such as presumptive tax -- linking payments of such a tax to availability of infrastructure services (e.g., bulk electricity at industrial/business tariff). Of course it should be costly to "steal" electricity to make such an offer effective. VAT needs to be effectively implemented and tax credits for previous tax payments need to be made available to those ready to be formalized. Lack of tax credits for previous VAT payments (especially for imported goods) can be costly to informal sector businesses (and a free gift to tax authority). Cities also need to reduce labor market rigidities that increase the cost of being formalized or becoming big. If governments do initiate some sort of wage/employment subsidies, they should be temporary, transparent, and targeted – and of course subsidies should be made available only if employers pay the basic taxes.

The policy response to informality from this perspective is not necessarily to view it as a threat to productivity and growth and to move to deregulate or to reduce the costs of regulation so as to reduce the incentives to avoid or evade regulations. Regulations should indeed be subjected to the tests of efficiency and equity. For example, if law says that all enterprises with 10 workers or more have to register, and if the cost consequences of registration are relatively high, then many enterprises will stay below the critical threshold and there will be a distortion away from optimal firm size. However, if optimal firm size is declining in any case, and this is particularly so in urban areas because of the added benefits of density and agglomeration, then reforming the regulation may not be as high a priority as ensuring that the benefits of density are indeed reaped by all enterprises. The focus turns more then to provision of urban services and to urban governance which underpins the delivery of these services, rather than the narrow and specific focus of weakening regulation or strengthening enforcement, although these will of course have their place.

4.3 An Agenda for City Mayors to Address the Challenge of Growing Informality

We can summarize our policy stance in the following manner. It is important for policy makers to recognize that much of the urbanization in developing countries is occurring through the informal sector. Informality is not going away—it is growing. And the forces leading to its growth go beyond regulations on the formal sector. So deregulation is a useful potential tool with limited impact on informality. It is not a panacea—it cannot be the mantra. But the link between urbanization and informalization needs to be better managed. City mayors need to focus on 3Is—*integration, Intervention, and institutions*—and one E—*entrepreneurship*.

- **Integration.** Policy makers should take an inclusionary, rather than exclusionary, approach to the urban informal economy. City mayors need to promote better integration of urbanization with the informal sector. The interaction between urbanization and formalization will play a key role in improving the link between growth and jobs strategies. City mayors should find ways to ensure that informal sector is integrated into city planning, budgeting and financing. The more cities recognize the link between urbanization and formalization, and design appropriate policies and investments to support it, the more effective the policy interventions will be.
- **Intervention**. Most people who work in the informal sector are predominantly poor in income and in non-income dimensions. This is because informal jobs have low productivity, and certain groups, such as the young or women are over represented in the informal sector. Informal sectors lack access to basic services (water, sanitation, electricity). City mayors should improve delivery of services in informal sectors and slums. Workers in informal sectors will also benefit from social protection programs.
- **Institutions.** To realize sustained development, many policy makers and business leaders want to encourage the informal-to-formal sector transition of workers through changes in property rights, business registration procedures, and financial access that are important for this transition, often with specific application to whether entrepreneurs choose to enter the formal economy or not. City mayors need to address these issues at the local level, with a focus on which policies can grow the overall size of the formal sector. What should city mayors do? They need to engage with organizations of informal workers as partners in development and invite them to participate in city management. Understanding how the transition to organized involvement occurs is important for city planning and policy choices.
- **Entrepreneurship.** If job creation is a priority, policymakers should focus on promoting entrepreneurship locally. Of course, there are many policy levers that can be used by policymakers to promote entrepreneurial growth. To help achieve this, mayors should invest in local education and physical infrastructure. Job growth is predicted by higher concentrations of new and young establishments. The two most consistent factors that predict overall entrepreneurship are local education levels and the quality of local physical infrastructure. High-quality goods and services cannot be produced without well-educated workers and they cannot be delivered without roads, electricity, and telecommunication. And moving people is as important, if not more important, as moving goods.

The key point is that policy makers have to change their mindsets and bring small scale enterprises, their owners and their workers, into urban governance structures. They should be given greater voice in the design and management of urban policies. Presently, large scale enterprises have disproportionate influence

on urban decisions. But the urban future appears to be with smaller scale, informal, enterprises. There is a disconnect which needs to be addressed.

5. Conclusion

Two of the great stylized predictions of development theory, and two of the great expectations of policy makers as indicators of progress in development, are inexorable urbanization and inexorable formalization. Urbanization is indeed happening, beyond the "tipping point" where half the world's population is now urban. In this paper we have explored trends in informality, and the interactions between urbanization and formalization. Our main conclusions can be stated as follows.

Cities create the space for structural transformation, entrepreneurship and jobs. The world's urban population is expected to swell to over 60% in the next two decades, and continue to rise. Almost 90 percent of that growth will happen in the developing world: an expansion of almost two billion people. Africa and South Asia, the only regions still mostly rural, will see their urban populations double in that time. Much of this transformation will take place through the informal sectors, and in small and intermediate-size cities which often lack the skills, facilities, and services necessary to cope with the human tide.

The informal sector is large and persistent. Informal sectors in cities account for more than 50 percent of jobs, as discussed earlier. In India, 80 percent of manufacturing employment is in the informal sector. Informal sectors also account for a majority of entrepreneurship. In India, informal sector accounts for over 99% of establishments in the manufacturing sector. Nearly a billion people live in slums, and most of them work in the informal sector. While the formal sector has grown rapidly, and propelled growth higher in developing countries, the informal sector has kept pace. The persistence of informal sector is not due to some industries becoming less formalized and others more so, although technologically advanced and capital intensive industries tend to have lower informal sector shares. Persistence is more systematic and an integral part of the urbanization. The persistence is due to many more new enterprises that locate in cities are in the informal sectors, and many more people who migrate into cities seeking better paying jobs and living conditions, and thus create persistence. Indeed, informal sectors seem to thrive in cities that have dynamic formal sectors. Fast growing state-industries tend to experience increasing informal sector activity in India. All in all, informal sectors have become an integral part of urbanization and structural transformation.

Cities provide the ecosystem and generate agglomeration economies in the informal sector. Most empirical studies on cities and agglomeration economies have focused on developed economies and formal sectors. But there is emerging evidence that agglomeration economies in developing countries also operate in the informal sector. Related to the agglomeration economies, is the fact that entrepreneurs often find it difficult to work with large, vertically-integrated suppliers, and small entrepreneurs work better with many more small entrepreneurs. A diverse and large number of entrepreneurs in garment industry in New York made it more competitive. Pittsburgh with one large and vertically integrated steel factory has become a ghost town.

Formal firms are moving out and informal firms are moving into cities. There is striking difference in the movement of firms. Formal firms are moving out of more expensive cosmopolitan cities in search of lower land and labor costs. This is taking place at an even earlier stage of development in developing countries. The traded nature of manufacturing products allows more rural settings for firms, and manufacturers often seek cheaper environments than the wages and rents associated with large and high density areas. Industries in India with high capital and land intensity are more likely to locate in rural areas.

On the other hand, informal firms move into cities in search of better infrastructure, and to benefit from externalities generated by thicker labor markets, access to inputs, and proximity to customers. Cities with better education and infrastructure not only attract many more entrepreneurs, but also experience faster urbanization. Has the fast pace of urbanization reduced the size of informal sectors? Have persistence in informal sectors reduced the pace of urbanization? What can be done to integrate informal sectors with urbanization?

What can cities do to improve the link between formalization and urbanization? It is important for policy makers to recognize that much of the urbanization in developing countries is occurring through the informal sector. But the link between urbanization and formalization needs to be better managed. City mayors need to focus on three I's—*integration, intervention, and institution*—and one E—*entrepreneurship*.

In conclusion, we note that the phenomenon of growing informality in the face of rapid urbanization, which we have identified and discussed in this paper, is relatively new to the research and policy making arena. Older findings, older assumptions, and older policy prescriptions will need to be reconsidered as further research identifies the causes underlying the trends. Some of the main topics for exploration include: (i) the nature of agglomeration externalities and how they play out for the formal and informal sectors; (ii) the precise reasons why productivity levels in the informal sector are lower than in the formal sector, especially if agglomeration benefits seem to accrue equally if not more to informal enterprises; (iii) the reasons why informality persists in the face of fast growth and continued deregulation in many countries ; (iv) how to bring informal enterprises into the fiscal net so that they can contribute to the services that are needed for them to flourish; and (v) what policy measures can be undertaken to support the informal sector in playing a role in creating jobs and addressing poverty, given that it does not look as though job-creation in the formal sector has been or is likely to be sufficiently vigorous to meet the employment and poverty challenges of the next two decades. We have begun to raise these questions in this paper, and have begun to provide preliminary answers to them. But it should be clear that research on urbanization and (in)formalization deserves to be high on the agenda of economists and policy makers.

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