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## **INFORMALITY: CAUSES, CONSEQUENCES AND POLICY RESPONSES**

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# **Informality: Causes, Consequences and Policy Responses**

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## 1. Introduction

A stylized prediction of the development economics discourse is that informality will disappear with development. Much of our analytical and policy discussion on informality is framed by an expectation of its imminent demise. And yet in the last twenty years conventional measures of informality, far from declining, have either remained stagnant or have actually increased. This includes countries like India where economic growth has been at historically high levels. These trends led the OECD to ask in a recent publication: “Is Informal Normal?”<sup>1</sup> Their answer was in the affirmative.

What exactly is informality and what are its magnitudes and trends? What are the causes of informality and why is it not decreasing as predicted by standard theories of development? What are the consequences for inclusive economic growth of a large and increasing informal sector? What are feasible and desirable policy responses to informality? These are the questions which motivate this broad based overview of informality. The questions will be addressed based on recent and ongoing research on India and globally.

The paper comprises six sections including this introduction. Section 2 begins the analysis by considering the concept of informality, or rather the alternative conceptualizations of informality that abound in the literature. This section will also summarize the latest empirical work on levels and trends in informality globally, including in India, paying particular attention to data and measurement difficulties. It will establish the basic contention that informality, no matter how measured, is not on the decrease worldwide.

Why does informality exist? And why is it increasing? Section 3 develops a formal model to provide a framework in which to examine a range of hypotheses, from regulatory burden to technological change, focusing in particular on trying to understand why informality is increasing when development theory predicts that it should decline with growth and development. Section 4 uses the framework of the model of Section 3 as an entry point to the debate on whether informality is bad for inclusive economic growth. The consequences of informality for inclusion will also be assessed in this section, and it will be argued that research shows strong association between informality and poverty, especially of women.

Given the central role for policy towards informality in an inclusive growth strategy, what are the specifics of such a strategy? Section 5 considers a range of policy interventions, including deregulation and addressing the low productivity of small scale production. It will discuss in particular credit based interventions, for example encouraging or requiring formal sector banks to engage with informal enterprises, or supporting small scale financial institutions in the informal sector itself.

Finally, the concluding section 6 draws together the threads and summarizes the main findings and policy messages.

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<sup>1</sup> Jutting and de Laiglesia (2009).

## 2. Measurement

The discourse on “informality” and “formality” is an old one in development economics, and is closely linked to notions of “dualism” or “dualistic development.” One cannot get very far in the study of development without encountering these terms. And yet, as Guha-Khasnobis, Kanbur and Ostrom (2006) observe:

“Given the prominence of the formal-informal dichotomy in the development discourse, one might expect to see a clear definition of the concepts, consistently applied across the whole range of theoretical, empirical and policy analyses. We find no such thing. Instead, it turns out that formal and informal are better thought of as metaphors that conjure up a mental picture of whatever the user has in mind at that particular time.” (pp. 2-3).

Let us start with a brief historical excursion into thinking on formality and informality, beginning with discussions and debates in the context of dualism. It is commonly acknowledged that the term dual economy was coined by the Dutch colonial administrator and academic Julius Herman Boeke in his writings on the Dutch East Indies as they were then, Indonesia as it is now (Boeke, 1949). The dualism he wrote of was that between the “imported high capitalism” and the “native economy,” the argument being that modes of economic and social organization were very different between the two, and the former came into the ambit of formal colonial law and regulation, while the latter did not.

For development economists the idea of dualism was crystallized by Arthur Lewis’s (1954) Nobel Prize winning articulation of a two-sector model of development in which one sector is “modern/capitalist” (“industrial”, “urban”, “formal”) and the other is “traditional” (“agricultural”, “rural”, “informal”). The key difference is that enterprises in one sector maximize profits while in the other division of output is through traditional norms because in this latter case the marginal product of labor is zero (“surplus labor”). However, as the modern sector grows through investment, more and more labor is sucked into this sector from the traditional sector—the natural trajectory is thus for the traditional (informal) sector to fall in size relative to the modern (formal) sector.

Another notion of dualism, one that is related more to Boeke than to Lewis, is captured in the work of Keith Hart, the anthropologist who is credited with having coined the term “informal” in contradistinction to “formal” in his study of a slum area in Accra, the capital of Ghana in West Africa (Hart, 1973). Here is how he describes his insight in a later retrospective (Hart, 2006):

“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.” (p. 25)

It should be striking how similar this conceptualization is to that of the distinction between the regulated realm of colonial activities and the unregulated realm of “native” enterprise in Boeke (1949). This distinction between a regulated and an unregulated sector also

played a key role in the paper of Harris and Todaro (1970), which helped structure much of the analytical and policy discourse in development economics in the 1970s and 1980s, and which shows its influence even today. In this model the economy is divided into a sector which has a minimum wage regulation, the formal sector, and another where there is no regulation so the wage is determined in a competitive labor market. Here the size of the informal sector is closely related to the intensity of the regulation since it is the regulation which creates excess supply of labor in the formal sector which is then absorbed in the informal sector. Thus in this model informality will decline with deregulation.

The central idea in the above contributions is that “formality” is to do with an activity coming under the purview of the state, in the form of coming under the ambit of a law or a regulation, while informality is that which is outside this domain. As Guha-Khasnobis, Kanbur and Ostrom (2006) argue, this is the conceptualization that stands out as a common strand in a mass of literature that attempts different definitions, based on size of enterprise, degree of competition, coincidence of ownership and control, etc. However, there are still a number of steps to go before the concept can be operationalized for statistical measurement using national data sources.

An important issue is whether the perspective taken is that of the enterprise or that of the worker. India’s National Commission on Employment in the Unorganized Sector (NCEUS) reflects the debate in distinguishing between the informal sector (consisting of enterprises) and informal employment (consisting of workers), drawing on the guidelines of the International Convention of Labour Statisticians (ICLS, 2003) but applying them to India’s specificities:

*“Informal Sector:* ‘.....all unincorporated private enterprises owned by individuals or households engaged in the sale and production of goods and services operated on a proprietary or partnership basis and with less than ten total workers’.

*Informal worker/employment:* ‘....those working in the [informal] sector or households, excluding regular workers with social security benefits provided by the employers and [including] the workers in the formal sector without any employment and social security benefits provided by the employers’.

*Informal economy:* The informal sector and its workers plus the informal workers in the formal sector constitute the informal economy.” (NCEUS, 2009, p. 3)

With these definitions, the NCEUS found that in 2004-05, out of a total employment of 455.7 million workers in the Indian economy, 393.3 million were in the informal sector. Further, of the 62.6 million workers in the formal sector, 28.9 million were informal workers according to the above definition. Thus the informal sector employed 86.3% of all workers in India in 2004-05, the figure being 92.3% for the informal economy. The NCEUS also showed that these patterns had hardly budged since 1999-2000, the figures for that year being 86.1% for the informal sector and 91.5% for the informal economy. If anything, then, there has been a slight increase in informality during this period of high growth in the Indian economy. These broad trends in the Indian economy are confirmed by the independent work of Ghani, Kerr and

O’Connell (2013), who find that the employment share of the organized sector in Indian manufacturing has remained at around 81% between 1989 and 2005.<sup>2</sup>

When one moves across countries the institutional and legal framework changes and the specific statistical definition of formality and informality can also change, even when they derive from a common conceptual framework. Thus, for example, although in India size of enterprise is a key aspect of defining informality, for Mexico the institutional legal structures are somewhat different. As Levy (2008) clarifies, Articles 20 and 21 of the Federal Labor Law define the relationship between an employer and an employee (what is known as “subordinated work” in exchange for a wage, *la relacion obrero-partonal* in Spanish). Articles 12 and 13 of the Social Security Law then specify the obligations of the employer towards the employee as defined in the Labor Law. Notice that there is no reference to size of establishment. Formality is defined by Levy (2008) as being those workers who are registered for social security—he estimates that in 2006 these workers constituted 38% of the work force. Thus formality as measured is much higher than in India, but still below 50%.

Country specific studies can of course use country specific definitions of formality and informality. But cross-country comparisons of level and trends need a more uniform statistical approach, as illustrated by the recent ILO-WIEGO (2013) publication. A common feature of cross-country compilations is that agriculture is excluded, among the reasons being that “usual data collection systems do not often distinguish formal and informal (or modern and traditional) agriculture.” (Charmes, 2009, p. 32) Despite comparability and other issues, such cross-country compilations give us a handle on the global picture in terms of levels and trends:

“...on average, informal employment accounts for more than 47 per cent of total non-agricultural employment in West Asia and in North Africa, and more than 70 per cent in sub-Saharan Africa, more than 50 per cent in Latin America, nearly 70 per cent in South and Southeast Asia and 24 per cent in transition economies....Albeit not uniform, the data show an upward-oriented trend of informal employment in all regions.” (Charmes, 2009, p. 32)

The conclusion on trends needs to be treated with caution not only because of country specific variations but because different studies can produce different results as new and more recent data become available. For example, the ILO-WIEGO (2013) study presents trends for 13 countries over a five to ten year period. While trends for Mexico (not much change in informality rates) and India (informality rates of around 85% up to 2011/12) are consistent with other studies, it finds declines in informality in several Latin American countries, and in South Africa. However, we can safely say that the uniform and significant reduction predicted by development theory has not materialized, especially in a country like India.

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<sup>2</sup> There now appears to be broad consensus on these trends in Indian informality, in academic and in official circles—see for example Economic Survey of India 2013 (Government of India, 2013), Box 2.5.

### 3. Causes

If formality and informality are to do with relationship of economic activity to state regulation and laws, then the causes of informality must be sought in the nature of these regulations relative to the structure of economic activity, and the evolution of both in relation to each other. It will be helpful to set up a simple conceptual schema. Imagine first of all a world without any laws or regulation. There will then be a “natural” pattern of economic activity. For example, there will be a size distribution of enterprises, from the very small to the very large, which is the outcome of economic forces untrammelled by state intervention. Now let the state introduce a regulation affecting economic activity. Conceptually this could be any sort of regulation, but to fix ideas suppose the regulation states that all enterprises employing more than a certain number of workers have to register with the authorities and have to in turn provide certain benefits to their workers. Such “size-dependent regulation” is very common around the world. For example, India’s Factories Act (1948) requires such registration of all enterprises in manufacturing who use electricity and who employ 10 or more workers (20 or more workers if they use electricity).

The basic ideas can be developed with a simple model.<sup>3</sup> Let output  $y$  be given by

$$y = al - \left(\frac{1}{2}\right)bl^2$$

where  $l$  is labor and  $a$  and  $b$  are production parameters. We will focus particularly on  $a$  as a productivity parameter. If the wage is  $w$  then profit is

$$\pi = al - \left(\frac{1}{2}\right)bl^2 - wl$$

The unconstrained profit maximizing choice of  $l$  and the maximized profit  $\pi$  are given respectively by:

$$l = (a - w)/b$$
$$\pi = (a - w)^2/2b$$

Thus for the optimal unconstrained firm, size and profit increases with productivity  $a$ .

Now suppose that there is a regulation which bites at  $l > \hat{l}$ , and the effect of the regulation is to introduce a fixed cost  $c$ . This regulation is clearly irrelevant for  $a \leq \hat{a}_1 = b + w\hat{l}$ . For those with  $a > \hat{a}_1$  the choice is between complying, not complying, or adjusting out of the regulation by keeping employment at  $\hat{l}$ . If the firm complies, employment and profit are given by is given by:

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<sup>3</sup> A more general formulation is presented in Chatterjee and Kanbur (2013); a related model focusing on taxation and informality is presented in Kanbur and Keen (2014). There are now many such models, of different degrees of sophistication—for example, de Paula and Scheinkman (2007), Gourio and Roys (2012) and Garicano, Le Large and Van Reenen (2013). But all models recognize their debt to the initial formulation by Lucas (1978).



$$l_A = (a - w)/b$$

$$\pi_A = [(a - w)^2/2b] - c$$

Suppose that if the firm does not comply there is a probability  $p$  of getting caught and, if caught, there is a fine of  $f$  per worker employed. Then employment and profits are given by:

$$l_B = (a - w - pf)/b$$

$$\pi_B = [(a - w - pf)^2/2b] - pc$$

If instead a firm chooses to stay at an employment level of  $\hat{l}$  its employment and profit is:

$$l_C = \hat{l}$$

$$\pi_C = a\hat{l} - \left(\frac{1}{2}\right)b\hat{l}^2 - w\hat{l}$$

Finally, returning to those with  $a \leq \hat{a}_1 = b + w\hat{l}$ , since they are outside the regulatory net their employment and profits are given by the unconstrained values for this range:

$$l_D = (a - w)/b$$

$$\pi_D = (a - w)^2/2b$$

A firm with  $a > \hat{a}_1$  compares profit in the three regimes to decide which regime to be in—comply, evade, or avoid. It can then be shown that there exist values of  $a$ ,  $\hat{a}_1 < \hat{a}_2 < \hat{a}_3$ , such that<sup>4</sup>

$$\hat{a}_1 < a < \hat{a}_2 \Rightarrow \pi_C > \pi_B > \pi_A$$

$$\hat{a}_2 < a < \hat{a}_3 \Rightarrow \pi_B > \pi_C > \pi_A$$

$$\hat{a}_3 < a \Rightarrow \pi_A > \pi_B > \pi_C$$

To these regimes is to be added the category of those who do not come under the regulation at all—in other words, those with  $a \leq \hat{a}_1 = b + w\hat{l}$ . These might be termed the outsiders, with profits denoted  $\pi_D$ . The values of  $\hat{a}_1 < \hat{a}_2 < \hat{a}_3$  are defined by the following equations:

$$\hat{l} = (\hat{a}_1 - b)/w$$

$$\pi_C(\hat{a}_2) = \pi_B(\hat{a}_2)$$

$$\pi_B(\hat{a}_3) = \pi_A(\hat{a}_3)$$

The introduction of regulation thus creates four categories of enterprises:

- A. Those who are covered by the regulation and comply. For example, in the case of India's Factories Act, enterprises with 10 or more workers which register.
- B. Those who are covered by the regulation but do not comply. This is, quite simply, illegality—an enterprise with 10 workers or more which does not register.

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<sup>4</sup> This will hold for  $p$  and  $f$  small enough.

- C. Those who adjust out of the coverage of the regulation. This would be an enterprise whose “natural” size would be 12 workers, say, but which chooses to stay at 9 workers to avoid registration costs. These enterprises have reacted perfectly legally to the regulation.
- D. Those who are outside the coverage of the regulation. These would be enterprises whose “natural” size would be less than 10 workers.

The above categorization can be used to address a number of issues in the causal factors behind informality. If formal is defined as being covered by regulation and complying, category A is formal. Then if informality is the complement of formality, B + C + D is informal. Indeed this is how informality is often measured from national statistical sources. But it is immediately clear that informality is itself composed of different sub-categories, with very different economic causes (and consequences). Category B would not exist if enforcement of the regulation were perfect. Its size depends on the nature of the enforcement regime. Category C is one which worries many economists as representing the distortionary costs of the regulation—in the example of size-dependent regulation, these enterprises would be larger and would employ more workers in the absence of regulation. Category D is outside the regulatory net altogether, but is the special worry of many civil society organizations, which see low productivity and low incomes in these very small scale enterprises as a major barrier to inclusive growth.

Before proceeding to a detailed discussion of the causes of informality, let us put some empirical flesh on this theoretical skeleton. How big are the different categories A, B, C, D? We can answer this question for the case of India’s Factories Act, the law we have been using as an example throughout the theoretical development. We draw on the work of Chatterjee and Kanbur (2013). India’s Factories Act (1948) applies to manufacturing and requires registration of all enterprises with 10 or more workers if they use electricity, and 20 or more workers if they do not. Chatterjee and Kanbur (2013) argue that the second requirement has become increasingly irrelevant since there are fewer and fewer establishments that employ 10 workers or more but do not use electricity. We follow them in focusing on the “10 or more workers” criterion (they show that the patterns are not much affected using the broader criterion).

Registered enterprises comprise the “organized sector” in official terminology, or the formal sector in terms of the development economics discourse. This is our category A above—those who come within the ambit of the state and comply with the defining regulation. Thus all unregistered enterprises would constitute informality, B+C+D. But what about categories B, C and D taken separately? How do we get an estimate of the number of enterprises and the employment in each of these categories? Registered enterprises are surveyed every year under the Annual Survey of Industries (ASI). But every five years the National Sample Survey Organisation (NSSO) conducts a survey precisely of those enterprises which are not registered under the Factories Act. It collects a large amount of information on these enterprises, including employment.

Clearly, those enterprises in the NSSO quinquennial survey of unregistered manufacturing enterprises that have 10 or more workers belong to category B—they should be registered but are not. What about category C? This presents a difficulty because it involves a counterfactual. Among the enterprises in the NSSO survey with less than 10 workers, we have

to identify those whose “natural” size is 10 workers or more and those whose natural size is less than 9 workers or less. Specifying the counterfactual will always be controversial, but the theory developed above gives us a way of bounding the size of category C. The theory says that those who adjust out of the regulation will place themselves just at the boundary where the regulation bites—any further would lose profit for no good reason. In the context of India’s Factories Act, this boundary is 9 workers. Thus if we include all 9 worker enterprises in the NSSO in category C, this will give us an overestimate of C, since some of these might be those whose natural size is 9 workers. While a tight estimate would be best, for our purposes this overestimate will suffice. Then enterprises with 8 workers or less provide an underestimate of category D.

With this background, Table 1 below provides the Chatterjee and Kanbur (2013) estimates for a range of characteristics of categories A, B, C and D for India’s manufacturing sector, combining the ASI for 2009-10 and the NSSO for 2010-11. Several aspects of formality and informality are clear from the Table. First, as is already well known, informality in India is very large. Only 0.8% of enterprises in manufacturing are formal (A), and they employ 24.8% of workers. The informal sector in manufacturing, comprising categories B, C and D, have a 75.2% share of employment and 99.2% share of enterprises in manufacturing. Formal enterprises are larger than informal enterprises, and are more productive, which also confirms existing understandings.

What is new in Table 1 relative to the literature is a disaggregation of informality into categories B, C, D. Within the informal sector, category D totally dominates. The “outsiders”, those who are not affected by the Factories Act because their natural size is below the size at which the law bites, account for 97.3% of all enterprises, and 64.1% of all employment. Category C, those who are adjusting out of the Factories Act, accounts for only 0.4% of all enterprises and 1.3% of all employment—and, as noted above, these are overestimates. More significant is category B, those who are evading the Factories Act. This constitutes 1.5% of all enterprises and 9.8% of all employment. Comparing this with category A, it would appear that almost twice as many enterprises are non-compliant as are compliant with the Factories Act. With almost 10% of all employment in category B, this is a significant type of informality; much more so, it would seem on the basis of these empirical patterns, than category C.

<b>Table 1: Compliers, Evaders, Avoiders and Outsiders under the Factories Act, 1948, in 2009-10*</b>				
<b>Firm Characteristics</b>	<b>Firm Categories</b>			
	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>
	<b>ASI Firms</b>	<b>NSSO Firms with 10 or employees</b>	<b>NSSO Firms with 9 employees</b>	<b>NSSO Rest</b>
Number of Firms	143,452	256,993	67,249	16,900,000
Share of Firms	0.8%	1.5%	0.4%	97.3%
Total Employment**	11,500,000	4,543,668	605,245	29,700,000
Share of Employment	24.8%	9.8%	1.3%	64.1%
Mean Employment	79.9	17.7	9.0	1.8
Median Employment	21	13	9	1
Median Labor Productivity (Rupees)****	135,626	59,820	74,000	23,400

\* Usage of power is ignored and only the criteria of 10 or more employees is considered for registration under the Factories Act,1948. Excludes firms with missing or zero employment.  
\*\*Includes unpaid family members/helpers working in the firm.  
\*\*\*Capital here is defined as the value (market value for NSSO and book value for ASI) of assets at the end of the year  
\*\*\*\*Labor productivity is total gross value added divided by total employment

With this empirical background, let us return to the theory model to identify some of the key causes of informality, taking the parameters of the model one at a time. The size distribution of  $a$ , enterprise productivity, is a key determinant of the size of B+C+D, and of B, C and D separately. A large proportion of enterprises with  $a \leq \hat{a}_1$  will lead to a large informal sector. In Indian manufacturing this number is 97.3%.

Consider now another parameter which one can take as a feature of the general level of the development of the economy, the wage  $w$ . An increase in the wage will increase  $\hat{a}_3$  and thus decreases A and increase B+C+D. Perhaps somewhat paradoxically, a higher wage economy will lead to a higher level of informality as measured. But the logic is quite clear from the model. The balance between complying and not complying with the regulation is tilted in favor of not complying when the wage is higher. The composition of informality is also in general changed by an increase in the wage. An increase in  $w$  increases  $\hat{a}_1$  and thus D. However, the change in the size of B and C remains ambiguous.

A third parameter which we can interpret as reflecting conditions in the national and global economy generally is the technology parameter  $b$ , which determines the optimal unconstrained size of the enterprise. A higher  $b$  lowers the optimal size of enterprise and shifts the size distribution of enterprises towards smaller sized enterprises. It could be argued that the evolution of technology in the last few decades has been such as to permit operation at lower

scales due to new technologies of production and coordination. A higher  $b$  raises  $\hat{a}_3$  and thus increases  $B+C+D$  and total informality as conventionally measured. It also increases  $\hat{a}_1$  and thus the number of enterprises in category D. However, the effect on  $\hat{a}_2$  and thus on B and C is ambiguous.

Let us now turn to policy parameters. One interesting finding of the theory model is that the employment level at which the regulation bites is not relevant for the total size of informality--  $\hat{a}_3$  is independent of  $\hat{l}$ . The reason for this is that if enforcement is sufficiently weak, the relevant choice for firms at the margin is between compliance and non-compliance (the latter always dominates adjusting out of the regulation altogether). The parameters relevant for this choice are to do with enforcement, for example the probability of getting caught, not the employment level at which the regulation bites. However, although total informality  $B+C+D$  does not depend on  $\hat{l}$ , the composition of informality between B, C and D is affected. This is because the choice between non-compliance and adjusting out is indeed affected by  $\hat{l}$ . Specifically, an increase in  $\hat{l}$  will increase D and decrease B—the effect on C is ambiguous.

Now consider the effect of the other parameter of regulation, the cost of registration  $c$ . As this increases,  $\hat{a}_3$  increases so the total extent of informality increases. In terms of the composition of informality,  $\hat{a}_1$  and thus D remains unchanged, while  $\hat{a}_2$  and thus C increases. Put simply, when the cost of registration increases, the gain from avoiding increases by this amount, but the gain from evading increases by less because of the probability of getting caught and having to pay the fine. The change in the size of B is ambiguous.

An important aspect of policy is regulation of enforcement, captured in the model by the probability  $p$  of getting caught and, if caught, a fine of  $f$  per worker employed. An increase in either  $p$  or  $f$  will increase  $\hat{a}_2$  and decrease  $\hat{a}_3$  while leaving  $\hat{a}_1$  unchanged. Thus  $B+C+D$  will decrease, with D unchanged, B lower and C higher. The reasoning is that tightening of enforcement will encourage more compliance at the margin of compliance and non-compliance, but will encourage adjustment out of regulation at the margin of non-compliance and adjustment. Thus we have a clear causal account of the link between tighter enforcement and informality—total informality will decrease as will evasion, but adjustment out of regulation will increase. Thus looser enforcement, which is argued by some to be the order of the day, will increase total informality and evasion, but reduce adjustment out of informality.

To summarize, the following factors will lead to a higher level total amount of informality ( $B+C+D$ ) as conventionally measured:

- Higher proportion of low productivity enterprises.
- Higher wage.
- Lower optimal size of enterprise.
- Higher private cost of regulation.
- Lower intensity of enforcement of regulation.

The previous section showed that there has been trend of increasing, or at least stagnating, rates of informality in countries such as India. In terms of general trends, if the past three decades can

be characterized as having an improvement in productivity then this factor militates against accounting for the increase in informality. Similarly if it can be argued that the move towards deregulation in the decades of liberalization has lowered the private costs of regulation, this factor also mitigates against explaining the increase in informality. However, there are three other features of the last three decades which could indeed explain the observed increase in informality—a lower intensity of enforcement of regulation, a higher wage, and a lower optimal size of enterprise.

The results on the composition of informality are not quite as clear cut, but we do have some results:

- The number of outsiders, D, increases with (i) higher proportion of low productivity enterprises, (ii) higher employment level at which regulation bites, (iii) higher wage, (iv) lower optimal size of enterprise.
- The number of avoiders or adjusters (C) increases with (i) higher costs of registration, (ii) higher intensity of enforcement.
- The number of evaders (B) increases with (i) lower employment level at which regulation bites, (ii) lower intensity of enforcement.

These specific results on composition will become important when we discuss the consequences of informality, and policy responses to address informality, to which we now turn.

#### **4. Consequences**

Having defined and measured informality, and having identified a range of causes for it, we now consider the consequences of informality. The policy concern with informality flows from three broad categories of consequences which can be labeled under two p's: productivity and poverty<sup>5</sup>. The broad consensus is that informality is associated with low productivity and high poverty, and that addressing these problems requires addressing informality in some form or fashion. The specifics of policy measures will be discussed in the next section. Here we look in greater detail at these two consequences of poverty.

##### **Productivity**

The productivity difference between formality and informality are shown in Table 1 for Indian manufacturing. Taking value added per worker as a measure of productivity, median labor productivity is Rs. 135, 626 in category A, but it is Rs. 23,400 in category D, with productivity in categories B and C about half way in between. Thus 97.3% of manufacturing enterprises in India have an average productivity which is a sixth of the productivity of 0.8% of the enterprises which are in the formal sector. This is a huge difference. If informal enterprises could be raised to the productivity of formal enterprises throughout India, output per worker would be five times as high, with corresponding consequences for per capita income and poverty.

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<sup>5</sup> There is a third p—public finance or low fiscal base. This is addressed in Kanbur and Keen (2014) and Jutting and deLaiglesia (2009)

The gap in productivity between informal and formal enterprises is a global phenomenon. For example, Bolio et. al. (2014) highlights the phenomenon in their discussion of “the two Mexicos”:

“Mexico’s slow income growth in the past three decades—GDP per capita rose by just 0.6 percent per year on average and only 0.4 percent during 2013—is due to weak labor productivity, which fell from \$18.30 per worker per hour (in purchasing power parity) in 1981 to \$17.90 in 2012.... Behind the productivity averages are two dramatically divergent trends: the productivity of large modern enterprises, many of which have become integrated into the global economy, has risen by 5.8 percent a year since 1999; in small traditional enterprises, productivity is falling by 6.5 percent a year. In between are mid-sized companies—a mix of traditional and modern establishments whose productivity growth has been close to flat at about 1.0 percent a year. Overall, the gains of modern companies have been all but offset by the decline in traditional ones, leaving economy-wide productivity growth at about 0.8 percent a year since 1990.” (p. 2).

Levy (2008) discusses the Mexico case further, and La Porta and Shleifer (2008) develop the argument of informality and low productivity with cross-country exploration:

“Using data from World Bank firm-level surveys, we find that informal firms are small and extremely unproductive compared with even the small formal firms in the sample, and especially relative to the larger formal firms. Formal firms are run by much better educated managers than informal ones and use more capital, have different customers, market their products, and use more external finance.” (p. 1)

Rodrik (2014) brings the argument up to date by focusing on trends:

“Look around the developing world, and you will see a bewildering fissure opening up between economies’ leading and lagging sectors. What is new is not that some firms and industries are substantially closer to the global productivity frontier than others. Productive heterogeneity – or what development economists used to call economic dualism – has always been a central feature of low-income societies. What *is* new – and distressing – is that developing economies’ low-productivity segments are not shrinking; on the contrary, in many cases, they are expanding.”

Thus Rodrik (2014) brings together the trends identified in Section 2 and the well established productivity differences between formal and informal sectors to tell a sobering tale of productivity growth being held back in developing countries because of informality.

There is, however, a basic question about the association between informality and low productivity. Is low productivity caused by informality, or is informality caused by low productivity? In the model put forward in Section 2, enterprises sort themselves into different categories depending on the productivity parameter  $a$ . Those with low  $a$  will tend to be informal, in the sense of being in categories B, C or D. Indeed those with lowest productivity,

category D, are not affected at all by the regulation which defines informality. For them, it is low productivity which causes informality. For Indian manufacturing, this is 97.3% of enterprises, employing 64.1% of workers. Enterprises in categories B and C are affected by the regulation, and reduce their size in response. Now, in the formal model their productivity  $a$  is unaffected by their size, but it is generally accepted that over time smaller size may have deleterious effects on productivity growth. However, for Indian manufacturing enterprises in categories B and C constitute only 1.9% of enterprises, employing 11.1% of workers.

## Poverty

Let us turn now to poverty and informality. Chen (2006) presents a useful decomposition of different types of activities in the informal sector which can be related to poverty outcomes. In her classification of informality, which takes the broader definition of informality to combine informal enterprises and workers in informal jobs, the following segments are identified:

- Employers
- Own account operators
- Employees of informal enterprises
- Other informal wage workers
- Industrial outworkers/Homeworkers
- Unpaid family workers

Going from top to bottom, incomes range from high through medium to low. This cautions us that not all incomes in the informal sector are low. There are some in that sector, classified as informal because they fall outside state regulation, who might actually be well above the poverty line. However, these are the exception rather than the rule. In general, informality is associated with poverty.

For India, NCEUS (2007) presents perhaps the most comprehensive assessment of the association between informality and poverty. Bearing in mind the broadening of the definition of informality from workers in informal enterprises to include workers in formal enterprises without social protection, and the Indian terminology of organized for formal and unorganized for informal, Table 2 presents the breakdown of poverty by formality and informality. The overall pattern should be clear and is striking. The poverty incidence in the unorganized sector is close to twice as great as that in the organized sector. The poverty incidence among unorganized workers is close to four times that among organized workers.



**Table 2: Poverty Incidence By Formality/Informality, India 2004-5**

	Unorganized Sector %	Organized Sector %	Unorganized workers in Organized Sector %	Unorganized workers %	Organized workers %
Rural	19.3	12.0	17.0	19.2	5.4
Urban	25.5	10.7	20.7	25.1	4.5
All	20.5	11.3	18.7	20.4	4.9

Source: NCEUS (2007), Table 2.5, p. 24.

Patterns such as those above are almost universal. As an illustration, consider the case of urban Argentina depicted in Table 3 drawing on the work of Devicienti, Grossman and Poggi (2009). The data show clearly the close association between poverty and informality. The share of informal employment among poor households exceeds the national average, and the incidence of poverty is consistently higher when the head of household is informal. Unlike India, Argentina has a panel data which make it possible to explore the relationship between informality and poverty over time. The results show significant spillover effects:

“Our results from Argentina show that indeed poverty and informal employment are highly persistent processes at the individual level. Moreover, statistically significant and positive spillover effects are found running both from past poverty to current informal employment and from past informality to current poverty status, corroborating the view that the two processes are also shaped by interrelated dynamics in segmented labor markets.” (p. 18)

Thus informality causes poverty, and in turn poverty leads to informality. This informality-poverty trap has strong policy implications, and needs to be investigated further for India and other countries.

**Table 3: Informality and Poverty: Urban Argentina**

	May 1996 %	October 1998 %	October 2001 %	May 2003 %
Informal Employment- Overall	49.0	51.7	52.0	51.7
Informal Employment Poor- Households	62.5	70.1	71.6	69.9
Poverty Incidence- Overall	22.1	21.8	28.3	42.8
Poverty Incidence- Head of Household Informal	25.0	27.2	35.8	54.9

Source: Devicienti, Grossman and Poggi (2009), Table 1, p. 22.

The gender dimensions of informality are prominent in the global policy discourse, including in India. Globally, the recent patterns have been compiled and surveyed in ILO-WIEGO (2013) and show a varied pattern:

“In 30 of the 41 countries for which data were available by sex, the percentage of women in informal non-agricultural employment is higher than that of men.... By contrast, the majority of countries have a higher percentage of men than women in informal sector employment.... In Latin America and the Caribbean, informal employment is generally a more important source of employment for women than for men.... The Eastern Europe and CIS region shows a different pattern than the other regions. The percentages of informal employment and informal sector employment are consistently higher for men than for women in the few countries for which data were available.... In all Sub-Saharan African countries, for which data were available, the percentage of women in informal employment is higher than that of men... In South and East Asia, there are fairly similar percentages of men and women having an informal job in all the countries with the exception of Sri Lanka.”

Table 4 presents some basic figures showing the importance of women in the informal sector in India. It is seen that of all females in the workforce only 8.9% are regular workers, the corresponding number for men is 18.2%. But a higher percentage of women compared to men are in self employment, in casual labor and in unorganized labor. Most striking is that women dominate the homeworkers category, which confirms the ground level observation of

organizations like the Self Employed Women’s Association (SEWA). Here is the story of a bidi-roller Dipa-ben in Ahmedabad, as documented in Chen and Doane (2008):

“Dipa-ben, her husband, and their four children – three sons and a daughter – live in what used to be the kitchen of her parent-in-laws’ home – a small windowless room. ...Each day, Dipa-ben and her sister-in-law work together in her sister-in-law’s home, sitting on the floor rolling bidis and making paper bags, respectively....Like other women in their Koshti caste, Dipa-ben learned to roll *bidis* (handmade cigarettes) from her mother. Once a week, she takes a bus to get supplies from and deliver finished bidis to a contractor for a large *bidi* firm....To make the *bidis*, Dipa-ben has to cut the leaves to a fixed size (using a metal pattern), peel the veins off the leaves, soak them, fill the leaves with tobacco mix and roll them up, folding the edges in with a metal tool, tie each one with thread, and then tie each bundle of ten with thread....Dipa-ben’s back often aches as she sits all day on the floor – bent over - to roll *bidis*.” (pp. 51-52)

**Table 4: Gender Dimensions of Informality in India**

	Male	Female
Work Force Participation Rate (%)	54.7	28.3
Percentage of Regular Workers in Total Workforce	18.2	8.9
Percentage of Self-employed in Total Workforce	54.2	61.1
Percentage of Casual Labor in Total Workforce	27.5	30.0
Percentage of Unorganized Workers in Total Workforce	90.7	95.9
Percentage of Unorganized Sector Workers in Total Workforce	84.0	91.3
Percentage of Homeworkers in Self-Employed	6.5	30.1

Source: NCEUS (2007), Table 5.1 p.76

The central point, told by the statistics as well as by the ethnographies, is that in India, as in many other countries around the world, the informal sector is an important source of employment and income for women. The gender dimension must thus feature in any policy discussion of informality.

## 5. Policy

As already noted, informality vexes policy makers. In particular, its continued presence and relatively slow decline even in periods of rapid economic growth in countries like India seems to go against the basic predictions of development economics. If informality is the “problem” and growth the solution, what is one to do when growth doesn’t seem to be solving the problem?

A partial approach to the dilemma is to be found in the outcome of the simple model presented in Section 3. There it is seen that given the policy parameters and the economic fundamentals, enterprises select themselves into categories which we can identify with conventional ways of measuring informality. Category A is clearly the formal sector—those who come within the ambit of state regulation and comply. If the complement of formality is informality, then the remaining enterprises are by definition informal. However, there are three categories of informality—the evaders (B), the avoiders (C) and the outsiders (D).

The key to policymaking in this framework is twofold. First, to specify objectives such as efficiency and equity which transcend informality, so that informality becomes at best an intermediate indicator on the consequences of policies. In this perspective informality and its persistence in itself is neither good nor bad—the key is whether and how the evolution of informality sheds light on the efficacy of policies for inclusive growth. Secondly, to the extent that informality continues to play a role in the policy discourse, as it surely will given the history of development economics, great care should be taken to disaggregate informality into policy relevant categories, rather than taking it as an undifferentiated lump and gauging the success of policies by measuring impact on the magnitude of this aggregate.

With this background, and recalling the discussions in Sections 3 and 4, let us focus on a range of policies to advance efficiency and equity. As should be clear from even a cursory glance at the policy debate, much of the focus is on enterprise regulation and its efficacy in promoting equitable growth. The debate is sharply divided between those who believe these regulations to be inefficient and inequitable, and those who believe them to be necessary to correct market failures and protect workers’ wellbeing. In terms of the categories of the basic model in Section 3, this debate centers on enterprises who are in categories B and C, since these are the ones who have altered their behavior in response to the regulation.

However, there is a third party in the policy debate. These are the policy advocates who focus on enterprises in category D—the category for which the regulation is irrelevant. These are the enterprises with low productivity, generating low incomes. In the view of this third party, the debate between “pro-regulation” and “anti-regulation” misses the reality of the lives of those who earn their living from outside the domain in which the regulation bites. As shown in Section 4, in India this category account for 97% of all enterprises and 64% of all employment in manufacturing. Raising the productivity of these enterprises and the incomes of those working in it merits as much attention as the more vocal debates on regulation and deregulation. In this section we will first of all consider the regulation debate and then move to the equally important and large number who fall into the category D—the “outsiders.”

## Regulation and Informality

Following the model of Section 3, regulation leads to evasion and avoidance. Enterprises in categories B and C are smaller than they would otherwise be because of regulation. Output is lower and if this was the end of the matter the conclusion would be quite stark. Relative to the no regulation equilibrium output is lower overall and some enterprises are smaller, with perhaps dynamic effects on future output and productivity. Indeed, this is how the sharpest arguments in favor of deregulation are often put.

There is significant evidence that regulations do indeed have an effect on enterprise size. This is particularly true, as might be expected, of size-dependent regulations. There are strong efficiency effects since those who adjust out of the regulations are dramatically smaller than their productivity would warrant. One can further introduce general equilibrium effects by solving for the wage in labor market equilibrium. If the fall in labor demand leads to a lower wage then there is a further effect as lower ability individuals are pulled into entrepreneurship, again relative to the no regulation equilibrium. Garicano, Le Large and Van Reenen (2013) apply this framework to France, where labor laws bite when firm size exceeds 50 workers. They find that with flexible wages the one-off effect of regulation is equivalent to a loss of 1% of GDP. When wages are inflexible the loss climbs to 5% of GDP. Gourio and Roys (2012) extend the empirical framework to the dynamic setting of Lucas (1978). Their study captures the spirit of much of the analysis in this literature:

“In France, firms with 50 employees or more face substantially more regulation than firms with less than 50. As a result, the size distribution of firms is visibly distorted: there are many firms with exactly 49 employees. We model the regulation as the combination of a sunk cost that must be paid the first time the firm reaches 50 employees, and a payroll tax that is paid each period thereafter when the firm operates with more than 50 employees....The key finding is that the regulation is equivalent to a combination of a sunk cost approximately equal to about one year of an average employee salary, and a small payroll tax of 0.04%....Removing the regulation improves labor allocation across firms, leading in steady-state to an increase in output per worker slightly less than 0.3%, holding the number of firms fixed. However, if firm entry is elastic, the steady-state gains are an order of magnitude smaller.”

Similar simulation exercises have been done for other countries. Using a two sector model with manufacturing and agriculture for India, with a focus on removing size-dependent regulations in manufacturing, Cai and Pandey (2013) find that:

“Labor regulations increase the cost of hiring labor for larger establishments and have been cited as the reason for the “missing middle” in Indian manufacturing. Using data for India, we calibrate a two-sector model in which agents differ in their managerial abilities and successfully generate this “missing middle”. We use the model to undertake a counterfactual exercise where we remove the labor regulations and evaluate the changes. We find that removing the regulations leads to reallocation of labor and capital, and results in a 2.3% increase in GDP per worker. We find that the increase in real output per worker is in fact higher in agriculture (2.8%) than in manufacturing (0.7%). The gain in labor productivity in agriculture is accounted for mostly by the increase in capital allocation for the sector.”

General equilibrium studies such as the one by Cai and Pandey (2013) complement cross-sectional studies like that by Besley and Burgess (2004) which find a negative impact of regulations on growth across states of India (see also, for example, Box 2.4 of Government of India, 2013).

One feature that stands out from the studies by Gourio and Roys (2012) and Cai and Pandey (2013) is the relatively small impact of size dependent regulations on overall productivity. In France complete and total removal of the regulation leads to an increase in output per worker of only 0.3%, and a much lower figure over the long run. For India, there is a 2.3% static once for all gain in output per worker, and only a 0.7% gain for manufacturing. The numbers for India can also be seen through the prism of our Table 1, which presents median employment size and median labor productivity for each category of enterprise. Let us for this argument treat these as means in order to take out the effects of outliers. Only 12% of workers are employed by workers in categories C and D. So if the removal of the Factories Act magically transformed these into workers with twice the productivity, the same as that of workers in category A, then overall productivity would experience a once for all increase of around 6%. But this is clearly an overestimate because naturally productive enterprises are selected into category A according to our model. A full calibration of the counterfactual is beyond the scope of this paper, but a number less than 3% seems plausible. The general point for countries like India is that much of the weight of low productivity comes from that part of the size distribution of enterprises which is not affected by regulation at all. A different set of policies need to be formulated for this part of the informal economy.

Before turning to category D—the outsiders—note that the two studies quoted above, in common with most studies of this type, only analyze the cost side of the regulation. But is there no benefit to regulation at all? What of the benefits to workers of better health and safety if that is the nature of the regulation? Surely this must be accounted for before a final assessment can be made? Such an analysis is conducted by Kanbur and Keen (2014) in the context of taxation and informality, where the tax and revenue interpretation facilitates direct comparison with standard public finance methods and perspectives. It is shown, for example, that an optimal policy, one which balances out the losses from incentive effects and the revenue gains from those in the tax threshold, will in general still have positive taxation and a positive threshold.

The analogy in our case is to take into account the benefits to workers from regulated enterprises. Health and safety and worker benefits are not explicitly modeled in Section 3, but we do have the registration cost  $c$ . This can be thought of as accruing to the government as revenue and its social value must be accounted for, either as government revenue per se or as reflecting the benefit to workers of the regulation. To illustrate the argument, let us take the case where enforcement is so good ( $pf$  is so high) that category B disappears leaving only category C ( $\hat{a}_1 = \hat{a}_2$ ). Then the government raises an amount  $c$  from all those with  $a \geq \hat{a}_3$ , but the economy loses output for enterprises between  $\hat{a}_1$  and  $\hat{a}_3$ . The analogous argument to that in Kanbur and Keen (2014) would then be that the optimal level of  $c$  is not zero i.e. no regulation is not optimal, even taking into account the costs on output and efficiency.

## Promoting the Outsiders

Even if significant deregulation took place, for example if the fixed or marginal costs of registration were reduced, this would leave unchanged the production conditions of those to whom the regulation does not apply. In the model, these are enterprises with employment less than  $\hat{l}$ . In the empirical analysis of Table 1, these are the 97.3% of all enterprises in Indian manufacturing. And, putting a face on the theory and the numbers, these include own account workers like the bidi-roller Dipa-ben, whose story was told in Section 4. Interestingly, if the regulation was relaxed in the sense of raising  $\hat{l}$ , the number of outsiders would only increase! Deregulation of enterprises does not seem to be the answer to low incomes and productivity in this (huge) section of economic activity.

The answer, rather, is to employ direct methods and interventions to address low productivity in these enterprises. Own account workers like Dipa-ben, who constitute one worker enterprises (note from Table 1 that the median size of enterprise in category D is 1 worker), have low incomes because their productivity is low and because their bargaining power is low vis-a-vis the contractors and sub-contractors to whom they sell their output. These are the factors which need to be addressed by policy makers if they wish to address the “problem” of informality.

There are many dimensions of improvement of productivity and incomes in small scale enterprises, including skill enhancing training, access to infrastructure, improving technology and improving access to credit in order to permit acquisition of new technology and expansion of operations. Of these, access to formal credit at reasonable terms is also important not only for enterprises in the informal sector, but for the poor in the informal economy as individuals managing their personal finances against a series of shocks. Our discussion here will focus primarily on credit.

An initial insight into the issues of credit for informal sector enterprises and workers can be got through looking at the background and objectives of the SEWA Bank:

“Self- employed women workers are caught in the vicious circle of poverty; of indebtedness, assetlessness, and low-income levels. A possible solution to free these women from this vicious circle was by directly linking them with the nationalised banks. But the formal sector institutions were unable to meet the financial needs of women workers adequately for a number of reasons. These included complicated forms, which were largely inaccessible to illiterate women, need for high levels of collateral to get credit... Women workers, especially those in the informal sector-have been largely bypassed by the formal banking institutions. However, they are economically active, and have distinct expenditure patterns, depending upon their trade or work, their family situation and their socio -economic conditions. SEWA Bank relies on an intimate knowledge of its client's expenditure patterns, in order to develop appropriate products and services.”<sup>6</sup>

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<sup>6</sup> <http://www.sewabank.com/introduction.html>

The same introduction could be written for much of the non-formal banking system in India which caters to the informal economy.

There is, of course, a huge literature on lack of access to credit to the poor in developing countries, including in India. Innovative micro banking institutions such as the Grameen Bank or the SEWA Bank have been written about extensively, and analyzed. This is not the occasion to review this vast literature. Rather, the focus here is on what policymakers can do, and indeed on how policy is holding back the development of credit to the informal sector and informal workers.

In India, there has been a huge expansion of formal bank branches in previously unbanked areas, pushed by a policy of priority sector lending with associated carrots and sticks. There is considerable academic debate on the impact of this expansion, particularly on poverty. Thus Burgess and Pande (2005), focusing on rural bank branch expansion, conclude that:

“Evaluated at the sample mean, we find that rural branch expansion can explain a 14 to 17 percentage point decline in rural headcount— roughly half the overall fall across the period.” (p. 793).

This conclusion is confirmed in Burgess, Pande and Wong (2005). However, just to show the difficulties in establishing such findings convincingly, here is how Panagariya (2006) critiques their findings drawing on the work of Kochar (2005):

“Kochar (2005, p. 2) raises serious questions about the identification strategy of Burgess and Pande arguing that ‘it is flawed because the expansion of the banking network during this period went hand-in-hand with the government’s broader anti-poverty programs, including the IRDP, making it impossible to distinguish the effect of the expansion of the banking network from that of government subsidies and other IRDP inputs.’ Kochar also presents evidence showing a close correlation between the real total expenditures on the IRDP and the expansion of the banking infrastructure between 1980 and 1990.” (p. 9)

The econometric doubts expressed by Panagariya (2006) and Kochar (2005) also resonate with the more ground level perspective of SEWA Bank noted above, that “formal sector institutions were unable to meet the financial needs of women workers adequately.” There is also of course the question of whether the cost of bank expansion was worth the purported benefits.

If the expansion of formal banks, whether private or state owned, is not necessarily the whole answer, then could the expansion of microbanking providing microfinance be an avenue for policy makers? Once again, there is a huge literature on this which it would be impossible to survey here. But it is instructive to look at two surveys (Morduch, 1999; Bannerjee, 2013) over a span of a decade and a half to see how the evidence and the reading of the evidence has changed, if at all. Morduch (1999) reached a sober conclusion fifteen years ago:

“The microfinance movement has made inroads around the world. In the process, poor households are being given hope and the possibility to improve their lives through their own labor. But the “win-win” rhetoric promising poverty alleviation with profits has moved far



ahead of the evidence...Most important, all else the same it remains far more costly to lend small amounts of money to many people than to lend large amounts to a few. As a result, the programs are highly cost-sensitive, and most rely on subsidies. Some observers speculate that if subsidies are pulled and costs cannot be reduced, as many as 95 percent of current programs will eventually have to close shop.” (pp. 1609-1610).”

A decade and a half later, based on a wealth of additional micro level evidence, Bannerjee (2013) summarizes his overview as follows:

“Taking this body of work together, some patterns stand out. First, there is clear evidence that as long as the credit is reasonably priced, it leads to business creation and/or some amount of expansion. ....Most studies also see an increase in ownership of consumer durables and business assets, especially if home repair and livestock ownership (both of which provide services into the future) count as durables....What is also striking is the lack of strong evidence linking this business creation to increases in consumption....There is also no evidence of substantial gains along other dimensions of welfare, such as education and health. At least in the one- to three-year horizon, we see no evidence of microcredit transforming the lives of its beneficiaries.” (p. 508).

Thus it might be argued that at least from the point of view of rigorous academic evidence there is a strong note of caution of how much microcredit by itself can do to increase productivity of small scale enterprises.

However, further discussion in Bannerjee (2013) on what the evidence says about why the impact of credit is so limited might in turn provide roads to other types of policy action. Bannerjee (2013) reads the evidence to reject the argument that microcredit borrowers are simply not credit constrained. But, give this, there are two types of reasons why microcredit in practice does not turn out to be as productive as might be expected and hoped—the structure of microcredit loans, and the capacity of microcredit borrowers to use them productively.

First, the structure and size of loans may not be appropriate to generate productive returns. Even for micro enterprises, if investment is needed at a certain minimum scale (albeit small) before a project pays off, then if the micro credit is too micro it will not lead to a productive outcome. Similarly, if the maturity structure is too short term and too inflexible in the face of shocks, this may inhibit investment in viable projects. Indeed, the loan size and maturity structure may align more with borrowing for consumption rather than investment, which matches the evidence which has accumulated over the last decade and a half.

Second, microcredit borrowers may not have the desire to start an enterprise or the capacity to fully utilize the loan to productive end even if they have the intent. Bannerjee and Duflo (2011) report the results of a survey in India that asks parents their aspirations for their children—none mentioned starting a business. But many may also lack the background and training to enter into running and managing an enterprise, especially one which would have to interact with the formal world as it grows, even if it remains small and informal. In this context it is interesting to note that microbanks like SEWA Bank who claim to be successful in helping their borrowers start productive enterprises pride themselves on being able to tailor the loans to

individual circumstances rather provide a single-size-fits-all package. Further, SEWA Bank and the parent organization SEWA also pride themselves in providing a range of appropriate financial and occupational training for their members.

These two dimensions of successful microcredit to the informal sector and the informal economy—tailored products and training—can help to frame a policy discourse. While formal banks can provide loans and other services at a larger scale, they do not seem to be able to get beyond standardized products which cater to those with regular sources of income or those with sufficient collateral to minimize risks. Microfinance institutions, at least some of them, do tailor their products to the particular income flows and expenditure patterns of their informal sector clients, but do not appear to be able to operate at a large enough scale to have significant impact at a national level.

At the same time, many of the regulations on formal banking, valid as they might be in terms of a world that is wholly formal, impose severe restrictions on those in the informal economy. Among these are variations on “know your customer” (KYC) requirements, which include the requirement to produce forms of identification which are easy to obtain in formal sector jobs, but not so easy in the informal economy. Thus, for example, documents such as utility bills to establish proof of residence may be impossible to get for those living in slum conditions, where the landlord has one meter but many tenants. Such requirements are in place the world over, reflections of a “mindset” in officialdom which is itself formal in nature (Kanbur 2014). To its credit, the Reserve Bank of India has recognized the problem as it has modified the requirements to make it more possible for smaller scale savers to open bank accounts, for example to allow NREGA cards to be used for identification, as well as Aadhar cards (“if the address provided by the account holder is the same as that on Aadhaar letter, it may be accepted as a proof of both identity and address.”<sup>7</sup>)

Although beyond the scope of this paper to address or assess in detail, the spirit of the basic model of the link between low productivity and informality in Section 3 also permeates the recommendations of the financial inclusion part of the Rajan Commission report on Financial Sector Reforms (Planning Commission, 2009). Relevant to our discussion is their Proposal 3-- “Allow more entry to private well-governed deposit-taking small finance banks...” (p. 7); Proposal 4—“Liberalize the banking correspondent regulation so that a wide range of local agents can serve to extend financial services.” (p. 8); Proposal 5: Offer priority sector loan certificates (PSLC) to all entities that lend to eligible categories in the priority sector. Allow banks that undershoot their priority sector obligations to buy the PSLC and submit it towards fulfillment of their target.” (p. 8); and Proposal 6: “Liberalize the interest rate that institutions can charge, ensuring credit reaches the poor...” (p. 9).

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<sup>7</sup> Paragraph 2.6Bd, RBI KYC Master Circular dated Jul 1, 2013, RBI/2013-14/94 DBOD. AML. BC. No. 24/14.01.001/2013-14

## 6. Conclusion

Let us return to the questions posed in the introduction. What exactly is informality and what are its magnitudes and trends? What are the causes of informality and why is it not decreasing as predicted by standard theories of development? What are the consequences for inclusive economic growth of a large and increasing informal sector? What are feasible and desirable policy responses to informality? This paper attempts to provide answers these questions, based on a review of research on India and globally.

There are myriad conceptualizations of informality in the literature, and associated approaches to measurement. However, a possible unifying strand is one which relates formality as that which comes within the purview of state laws and regulation, and informality as that which lies outside. Applying this broad approach to national statistical measurement, more than 80% of the Indian workforce is informal, and this ratio has hardly budged in the last twenty years, despite a period of remarkable growth by historical standards. Although levels of informality differ across the world ranging from lows in Latin America to highs in Africa and in South Asia, and although there are variations in across countries in trends, there is no uniform trend of decreasing informality, as would be predicted by standard development theories. It would appear that informality will be with us for a while.

An exploration into the causes of informality leads one away from informality as a uniform category, and towards an appreciation of disaggregated categories of informality. Starting with the basic conceptualization of formality and informality as being relative to state regulation, the model of Section 3 leads to a disaggregation into formal (A), and three categories of informality—those who evade regulation (B), those who avoid regulation (C) and those to whom the regulation does not apply (D). The paper presents an empirical breakdown of these categories for India, but as important is the appreciation that economic forces and policy parameters impact differently on the different categories. Thus an explanation for the non-decline of informality can be sought in factors such as regulation (although there has been deregulation during the period that informality has increased), higher wages through development (which may incentivize smaller scale enterprises, *ceteris paribus*), or evolution of technology if it makes smaller enterprises more viable than before.

The consequences of informality are by now well understood and documented. Informality is closely associated with poverty, in India and the world over. It is also associated with low productivity, but the causal direction is less clear. Informality in categories B and C is associated with enterprises smaller than they would be otherwise, with associated loss in output and perhaps dynamic losses in productivity growth. Here it is enterprise response to regulation which is leading to informality. By contrast, category D is also associated with low productivity, but here the regulation is irrelevant—it is low productivity which leads to informality as measured.

The causal chains discussed above are important for policy, and perhaps help explain the disconnect between those who focus on deregulation as the major policy response to informality, and those who focus on direct productivity enhancing interventions as the needed policy response. In terms of our classification, the first group is directing attention to categories B and

C of informality, while the second group is directing attention to category D. There is significant evidence that regulation does indeed have efficiency costs and this should be taken on board in the policy discourse, although the focus of the literature is almost exclusively on the costs of regulation with little discussion of the benefits side of the equation. On category D, the outsiders, we have discussed credit related interventions, in particular policies which emphasize financial inclusion for those who are excluded from formal banking. This must surely be a major plan in any policy to address the informality which looks like it will be with us for some time to come.

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