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INFORMALITY: CONCEPTS, FACTS AND MODELS

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**Informality: Concepts, Facts and Models
Introduction to a Special Issue of Margin—
The Journal of Applied Economic Research**

by

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Contents

1. The Importance of Informality
2. Papers in the Symposium
3. Open Research Questions

1. The Importance of Informality

The terms “informal” and “formal” have shown remarkable resilience in the four decades since their introduction into the development literature. Despite (mainly valid) charges of analytical imprecision of usage, and indeed of their misuse in policy circles, they have survived and even thrived in the discourse. It seems impossible now to do without them—the only question is how best to use the concepts that underlie them, in marshalling the facts of development they serve to characterize, in order to design policies to address the problems they highlight.

This paper introduces a symposium on Informality which pushes forward the research frontier by presenting new facts, and a range of ways of conceptualizing and modelling informality, especially in its interaction with the rest of the economy—national and international. This section discusses what informality is and why it is important. Section 2 introduces the papers in the Symposium. Section 3 sets out some open questions for research that emerge from the papers in the Symposium and from the literature more generally.

Broadly speaking, informal activities are those that are beyond the purview of the state. This was central in the conceptualization of the originator of the concept, Keith Hart (1973). The precise meaning of this term has remained open to controversy even today. Looking back on his work, Hart (2006, p. 25) comments as follows:

“Following Weber, I argued that the ability to stabilise 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.”

This conceptualization has, perhaps of necessity, been incorporated into official definitions and measures of informality. Informality of a production unit, or an employment relationship, is mostly defined through the absence of one or more forms of state mandate regulation, such as registration for taxes, enrollment into a social security system, minimum wage regulation, etc. Of course the details vary from country to country, making cross-country comparisons treacherous, but the concept should be clear.

However, the literature on informality has not stopped there. For example, in his review of informality almost three decades ago, Lipton (1984) identified several strands of conceptualisation including small size of enterprise, overlap between capital and labour, and “prevalence of perfect or rather...near-perfect competition” (p. 200). It is argued by Guha-Khasnobis, Kanbur and Ostrom (2006) that these features of activities, or of a sector, are outcomes of an economic process rather than core defining aspects of informality. The core concept has to be the relation of the activity to state regulation.

Nevertheless, the attraction of informality as a term seems to be that it can designate a range of phenomena, such as absence of regulation, smallness of size, competition, etc.,

that generally go together (Husmanns, 1996). Harriss-White and Sinha (2007) characterise the informal sector broadly as consisting of units engaged in the production of goods or services operating typically at a low level of organisation, with little or no division between labour and capital as factors of production (also an extensive blurring between labour and management or ownership), and on a small scale. They state that labour relations, where they exist, are based mostly on casual employment, kinship, or personal or social relations rather than contractual arrangements with formal guarantees. It is also important to note that the owners of these production units have to raise the necessary finance at their own risk and are personally liable, without limit, for any debts or obligation incurred in production. Moreover, expenditure for production is often indistinguishable from household expenditure and capital goods such as buildings or vehicles may be used indistinguishably for both business and household purposes. Activities performed by firms in the informal sector are not necessarily performed with the deliberate intention of evading the payment of taxes or social security contributions, or infringing labour or other legislation or administrative provisions.

There are two particular reasons why informality, seen as the loosely construed constellation of features discussed above, has persisted in the discourse. The first is the strong association between informality and poverty. Although recent empirical work (Chen 2006) has emphasized heterogeneity within the informal sector, the same work and a few of other empirical research, shows that those working in the informal sector are predominantly poor in income and in non-income dimensions. For example, for India, the NCEUS (2007, p. 24) estimated that:

“Workers in the unorganized sector had a much higher incidence of poverty (20.5 per cent) than their counterparts in the organised sector (11.3 per cent), almost double. This is an indicator of inadequate income levels and the extent of vulnerability of workers in the unorganised sector...”

Similarly, a recent OECD study concludes that:

“Informal jobs are often precarious, have low productivity and are of low general quality... Moreover, certain groups, such as the young or women, seem to be over represented within this category of jobs.” (Jutting and de Laglesia, 2009, p. 18).

Thus anti-poverty policy must perforce tackle the issue of informality and design interventions targeted to such activities.

The second reason why informality is central to the development debate is because an explicit or implicit prediction of many development theories is that informality will pale into insignificance as development proceeds. For example, this can be interpreted as the prediction of the Lewis (1954) model of development, in which labour is pulled out of the “traditional” sector and into the “modern” sector during development. Indeed, the share of the informal sector in total employment or total output is often used as an indicator of development. And yet, especially over the last twenty years, informality as conventionally

defined and twenty years has not declined substantially. Indeed, for some countries it may even have increased (Kanbur, 2011).

Why might there be such a counterintuitive trend? The answer depends on what else has been going on in the national and global economy in the last twenty years. With enhanced globalization there are various theoretical studies which have shown how trade opening can affect informal employment and informal wages. The evidence has been mostly that of increase in the incidence of informal employment due to trade reforms. However, the impact on informal sector wages has been found to be ambiguous depending on the structure of the country under consideration. Most empirical studies in this area, however, have not addressed the informal sector specifically. One exception is a study of India by Sinha and Adam (2006) who examine the effects of the India's trade reforms of the early 1990s on informal workers and their wages (Bacchetta et al. 2009).

Kanbur (2009) proposes the following classification of economic activity to help structure thinking about the evolution of informality. First, specify the regulations relative to which formality and informality are being defined. Let Category A be activity which is in the purview of the regulations and which is complying with them. This is the formal sector as normally conceived and measured in official statistics. The rest is informal. But there are three categories of informality. Category B is activity that comes under the purview of the regulations but which is not complying—in other words illegality. Category C is activity which has adjusted out of the purview of the regulation. An example would be a firm which would have had 10 employees without the regulations but which chooses to have 9 employees because the regulations bite when employment level reaches 10. Finally Category D is activity which is outside the purview of regulations in the first place and is so not affected by it.

Before coming to the question of informality trends, notice that although we have estimates of the informal sector as a whole (simply, the complement of A), we do not have estimates of its components B, C, D. Yet different stances in the literature can sometimes be attributed to whether it is thought category C is relatively large (e.g. Maloney, 2004, and Levy, 2007), or whether the focus is on Category D (e.g. Chen, 2006). Focus on category C leads to a focus on regulations as the “cause” of informality, while focus on D perforce takes one beyond the realm of regulation, since these activities are in any case outside the purview of the state as defined. Rather, the focus would be on understanding why activity is at such a small scale, for example, or not integrated into broader market processes. What might explain the relative persistence of B plus C plus D over the last twenty years?

The size of B depends on the relative gains and losses from illegality, and a key factor influencing the size of this component is enforcement. The investigation of enforcement of regulations in developing countries is still in its infancy, but one hypothesis is that the persistence of informality is explained by relatively lax enforcement in an era of economic liberalization. Increased product competition as a result of liberalization and openness may also increase the incentives to move to B from A. The size of C depends on the relative costs and benefits of operating at a scale or in a manner that avoids (rather than evades) the regulations in question. If technology has evolved in a way in which economies of scale and scope have diminished, then it may be relatively cost effective for a unit to move into

C from A. The same conclusion would hold for the effect of greater competition in the product market. Changes in technology may once again explain the relative profitability of outsourcing to units that are entirely outside the purview of regulations, usually operating at very small scale. Thus the shift of labour from formal to informal segments is an important process of labour market adjustment observed in many developing countries during the period. The proximate causes could be that due to globalisation, industries shed formal labour to cut cost when they lose their competitiveness which then joins the informal work force (Sinha and Adam 2006). The expansion of informal workers drives down the wages of such workers as well, leading to an increase in the number of poorer households (Sinha 2010).

The above are hypotheses, and they will be highlighted again in Section 4 of the paper, where we present areas for further research. However, what they also illustrate is that informality cannot be seen in isolation from the rest of the economy. Informal activities interact with other sectors of the national and global economy and their evolution is not independent of what is happening in the world outside the informal sector (Fields, 2005). Hence the need for embedding the informal sector in broader multi sector models nationally, and models of international trade, as is done by several of the papers in this Symposium, to which we now turn.

2. Papers in the Symposium

The Symposium begins with papers which focus on the facts on informality. The first paper in the Symposium, “The Informal Economy Worldwide: Trends and Characteristics” by Jacques Charmes, begins with a brief history of the past 40 years of conceptualising and measuring the informal sector. As he notes, after a quick review of the origins of the modern literature:

“An implication on the definition and on the related methods of data collection is that non-registration of the individual (in the labour or social security registers) or non-registration of the enterprise (in the fiscal or commercial registers) is a basic criterion for the definition of the concept of informality.”

Among the many gems in this paper is a Table showing relative size of the informal economy for a large number of countries over a 35 year period, from 1975-2010. It is from Tables such as this that we begin to form a picture that the informal sector is not disappearing—far from it, in fact. A similar conclusion is reached by examining the Table showing the evolution of informal sector output as a percentage of GDP.

While Jacques Charmes’ paper gives us cross-country comparisons and trends over more than three decades, Imraan Valodia trains the informality lens on one country, South Africa, in the early 2000s. The policy context of his paper, “The Informal Economy in South Africa: Debates, Issues and Policies”, is a famous statement in 2003 by then President Thabo Mbeki, that

“The second economy (or the marginalised economy) is characterised by underdevelopment, contributes little to GDP, contains a big percentage of our population, incorporates the poorest of our rural and urban poor, is structurally disconnected from both the first and the global economy and is incapable of self-generated growth and development.”

The burden of Valodia’s argument is that this statement is empirically false and, more worryingly, can be used to justify neglect of the second economy: “two economies’ idea allows government to justify its economic policies for the so-called first economy, even though little benefit accrues to most of the poor.” He shows considerable movement between formal and informal enterprises, formality being defined, following official South African practice, and informal enterprise is defined through a combination of non-registration of enterprise for taxation and labour regulation, and smallness of size. Two interesting and important further conclusions are drawn which have relevance to the discussion in the previous section. First, given the movement between formal and informal sectors, and enterprise based definition of informality should be rethought, and more worker based conceptualisation introduced. Second, unlike the implicit model in Maloney (2004), movement of workers into the informal sector is not voluntary to avoid regulations and thereby earn higher incomes. This movement is of necessity because of lack of jobs in the formal sector.

The third paper in the Symposium, “Urban Employment in India: Recent Trends and Patterns” by Martha Chen and G. Raveendran, also focuses on the facts of informality. It is a meticulous account of the patterns of informal employment in Urban India, using three rounds of the National Sample Survey: the 55th round for 1999/2000, the 61st round for 2004/5 and the 66th round for 2009/10. Their conclusions are strikingly consistent with those of Jacques Charmes’ international trends:

“Urban employment trends in India, as summarized in this paper, defy predictions and stereotypes. Rather than being increasingly absorbed into modern formal wage employment, the urban workforce in India is becoming increasingly informal. Nearly half of the urban workforce is self-employed. Wage employment is becoming increasingly informal.... What is particularly striking is the overall and growing significance of four groups of urban informal workers at the bottom of the economic pyramid – domestic workers, home-based workers, street vendors, and waste pickers - who together represent one-third of urban employment in India today.”

Although they do not conduct a similar empirical analysis to that of Imraan Valodia, Chen and Raveendran also ask for the interactions between the informal and formal sectors to be recognised, and for policies to be designed in the acceptance that the informal economy is here to stay for the foreseeable future.

Following on from the careful delineation of the basic facts about the informal sector in the first three papers in this Symposium, the paper by James Heintz, “Why Do People Work in Informal Employment? Determinants of Selection into Self-Employment in Ghanaian Labour Markets”, moves to an econometric approach to test for the characteristics of

individuals that explain their employment in the informal sector in Ghana. Specifically, the paper estimates the determinants of the likelihood that an individual will be in non-agricultural self-employment. The data used are from the fifth round of Ghana Living Standards Survey (GLSS5), administered in 2005-6. The explanatory variables tested for in the probit regressions are at the individual level (e.g., sex, age, education, marital status) and at the household level (e.g., number of children under the age of 5, whether source of water is a tap). The estimations show a complex and nuanced pattern of selection into self-employment:

“What these results show clearly is that choices regarding employment in the formal or informal sectors are made within the boundaries demarcated by gender, access to credit, alternative sources of employment and education. These constraints arise from social structures such as gender, social norms, household infrastructure, and access to education and social networks..... These factors extend well beyond labour market rules and regulations. Our analysis suggests that there are multiple paths to self-employment in household enterprises and that selection dynamics differ between men and women. In this respect, there is no single 'cause' of informality in Ghana.”

These findings in many ways highlight the heterogeneity of the informal sector emphasized elsewhere in the literature (Chen, 2006; Kanbur, 2011).

The final three papers in the Symposium model, each in their own way, the interactions of the informal sector with the rest of the national and international economy. In their paper, “A Segmented Labour Market Model for the Construction of a Micro-simulation Model: An Application to the Philippines,” D. Boccanfuso and L. Savard estimate labour supply functions for employment in formal and informal enterprises in a discrete choice framework which allows switches in employment regimes:

“....the workers in our model face a cost to enter into the formal sector. This cost can be interpreted as a price to pay in order to enter into the formal segment of the market to obtain a job....this cost is specific to each worker and will depend on the workers’ characteristics... On the informal segment, the wage is flexible in addition to being lower compared to the formal wage. ... The informal labour market is competitive with a flexible wage that clears this market. The supply on this market will be strongly dependent on the reservation wages of the potential workers of this market. The cost of entry in the formal sector will also play a key role in determining their labour supply.”

The econometric model is estimated using data from the Philippines Income and Expenditure Survey. The findings are interesting in their own right—for example, it is found that education is a key determinant of selection into the formal sector, and that there is discrimination against women in the formal labour market. But the labour supply functions so estimated can then be used in Computable General Equilibrium (CGE) models to assess the impact on the informal sector of economy wide shifts in technology and trade.

The next paper, “Informality and Openness to Trade: Insights from Cross-Sectional and Panel Analysis” by Norbert Fiess and Marco Fugazza, takes up the issue of whether

increased international trade would increase or decrease the relative size of the informal sector. If informal activity was “residual” in the sense of comprising workers rationed out of “good jobs” in the formal sector, then heightened competition in the formal sector as the result of trade liberalization should lead to an increase in informality. However, if formal jobs are not rationed and there is more of a free choice in moving to informality (a la Maloney, 2004), then this argument will not hold. In general, the relationship between product market competition and labour demand in the presence of regulation is not clear cut. Fiess and Fugazza thus conduct an empirical analysis estimating the relationship between measures of informal employment and informal output on the one hand, and measures of openness on the other, using dynamic panel estimation methods on country observations. The central finding throws up a puzzle: while greater openness decreases informal employment, it increases informal output. They sketch possible resolutions of this seeming paradox, using models with heterogeneous workers where, for example, “the least productive individuals move to the formal sector where new and comparatively better employment opportunities may have arisen because of trade liberalization.”

The final paper in the Symposium introduces a method that is not familiar in the informality literature: agent based modeling. The approach is applied to an analysis of the impact of trade on the informal sector. The paper, “Trade, Employment and the Informal Sector: An Agent-Based Analysis” by Bill Gibson, introduces the approach as follows:

“In agent based models, there are no supply and demand functions per se. A trade is defined as an encounter between two agents that results in the exchange of goods at a negotiated price in a given period or sweep t . Agents may rely on local trading conditions, competition, to aid in the bargaining process in the standard way. If agent i is bargaining with agent j , for example, an adjacent trade between agents k and l at a different barter rate, may well have an effect on the settled price ratio in the i with j trade. The extent to which this does or does not occur, affects the size and the distribution of the gains from trade in period t . In the standard account, agents who benefit the most from trade in the previous period will expand production and those that benefitted the least will contract.... Once the response is known, the model can then say something about the demand for labour and the impact of growth on formal sector employment. In the model, growth is random but not entirely so: processes that experience a more rapid rate of growth of productivity increase their output by more and those with slower productivity growth increase hiring at a slower rate.”

The method is novel, at least for analysts of informality, but it is also worth exploring because it seems to support the conclusions of Gibson’s conventional modelling earlier in the paper, namely that trade and capital account restrictions can support the development of a formal sector.

3. Open Research Questions

The study of informality remains vibrant, and looks set to remain so in the foreseeable future. The literature and the discourse may give the impression of being well worn and

well-trodden. This is in part because of the sustained interest in the topic, and its importance to policy makers interested in development and poverty reduction. However, the discussions in this Introduction to the Symposium, and the papers in the Symposium itself, have highlighted a whole slew of open research questions. We conclude with a selection of these. Many of these questions have been addressed in various studies in some manner, but we think that significant further research is required to understand these issues more comprehensively.

- (i) Despite convergence on definitions based on relationship to state regulations, there are still significant variations in the literature. What should be the consensus conceptualization of “informality”?
- (ii) Given the conceptualization, the process of turning the concept into an empirical measure varies from country to country. Even given the recommendation of the 15th International Convention of Labour Statisticians (ILO 1993), to use one or more of the following three criteria: (i) no registration of the enterprise; (ii) small size in terms of employment; and (iii) non-registration of the employees of the enterprise, each of these can be and are applied differently from country to country. How can measure of informality be made internationally comparable?
- (iii) More recently, there has been a move to broaden the definition of informality (ICLS, 2003), 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” (Chen, 2006, p. 76). What differences arise in estimates and patterns of informality when the two definitions are used in different countries?
- (iv) How can we measure different types of informality—those who are evading regulation, those who have adjusted their activity to avoid regulation, and those to whom the regulation did not and would not apply? Until we get an empirical sense of the relative magnitudes of these three categories in different countries, we cannot reach consensus on the most important issues in addressing informality.
- (v) Does greater product competition, for example through trade openness, encourage informality or shrink it?
- (vi) Why has informality persisted and even grown despite strong growth performance in developing countries, contrary to the predictions of standard theories?
- (vii) What is the precise nature of the heterogeneity in the informal sector across different countries?
- (viii) Is productivity higher or lower in the formal sector than in the informal sector, and why?
- (ix) Which should be the policy priority for the objectives of poverty reduction and of growth—to support increases in productivity in the informal sector, or to support reducing costs to formalization?
- (x) Within the informal sector, what exactly is the priority for policy targeting—what is the single most important thing for policy makers to focus on?

These and other questions like them will test analysts of informality in the years to come. We hope that the papers in this Symposium, and the issues raised in this introduction, will contribute to that effort.

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