MEASURING THE INFORMAL ECONOMY – ONE NEIGHBORHOOD AT A TIME

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ABSTRACT

The study of the urban informal economy has expanded in the last thirty years, challenging researchers to find more accurate methods of quantifying its activity. This paper examines recent works that focused on the urban informal economy in particular, and evaluates different definitions and techniques for measuring it. Methods discussed include indirect estimation methods, such as currency demand, electricity consumption, and labor force statistical profiles, as well as direct estimation measures such as labor force and household surveys. This paper discusses the prospects for applying these largely macro-level methods to more micro-market analysis and speculates on the availability and usefulness of existing data sources in the United States. It concludes by suggesting that there is much room for further research on the size, determinants and implications of the informal economy in American cities and calls for new efforts to align different methods of measuring the informal economy so they can be increasingly used to support decision-making processes in the public and private sectors.

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MEASURING THE INFORMAL ECONOMY – ONE NEIGHBORHOOD AT A TIME

I. INTRODUCTION

Since its "discovery" in 1973 by Keith Hart during a research mission to Accra, Ghana, the informal economy has spawned a growing literature that has wrestled with the formidable theoretical and empirical problems involved in studying the survival strategies of the new urban poor (Mike Davis, 2006). As implied by its various descriptions over time and space –"shadow economy", "underground economy", "black economy", "grey economy", "hidden economy", "unobserved economy" – much of the focus of research on the urban informal economy has been on unveiling the size, determinants and characteristics of this so-called "elusive" socio-economic phenomena. Much of this research has been conducted in cities of the developing world. Yet the familiar sight of street vendors, street artists and immigrant day laborers on the streets, in the factories, in the ports and on the construction sites in American cities contradicts the so-called "hidden" nature of the informal economy, challenges the perception that informal economic activity is an issue exclusive to the cities of the developing world and above all, serves as a stark reminder that the informal economy is an integral part of our daily lives.

Indeed, increasing immigration, the rise in job flexibility but decline in job security, and the retrenchment of social welfare programs over the past two decades are driving the debate on whether the economies of American cities are actually formalizing or informalizing (Williams and Windebank, 2001). Charged with managing and regulating urban areas in the shadows of these contested processes are the actors with much to gain from this debate, local governments.

Over the past 20 years, cities have had to become more entrepreneurial and develop new competencies in economic development in the wake of reduced federal funding and increasing globalization. These factors, among others, have motivated state and local governments to broaden their efforts in supporting economic development. Too often, however, these efforts have focused on real estate-oriented development serving only a limited segment of the market, or on attracting a significant job or headline tax generator such as an automobile manufacturing facility or professional sports franchise. These same factors have also incubated an attitude among public officials that the "streets need to be cleaned up", that land use decisions should be more heavily enforced, and that the public good should receive greater protection.

As a result, veteran street vendors in New York City, tortilla manufacturers in Los Angeles, and cemetery tour guides in New Orleans are therefore, not viewed as important parts of the local economy, as drivers of wealth, enterprise and stability in communities. Instead, because their role is misunderstood by local public officials, participants in the informal economy are too often relegated to the margins of economic development programs and are the first to be castigated as sources of lost tax revenue, unfair competition, social service burdens, sidewalk litter or public health concerns.

A dearth of accurate data and knowledge on these “difficult-to-measure” economic activities both limits the broader urban formalization/informalization debate, but more importantly, makes it difficult to inform public policy decisions based on community needs or a broader notion of who is the recipient of government programs. With no established way of measuring its size, determinants or characteristics, neighborhood buying power and small business growth generated by the urban informal economy for instance, will remain unmeasured and therefore not factored into public and private sector decision-making, reducing the prospects for progressive and constructive policy interventions in the future.

For this reason, Social Compact is working with the Urban Markets Initiative (UMI) of the Brookings Institution to better understand urban informal economies. Together, they will invite a group of researchers and practitioners to discuss the urban informal economy at the neighborhood or micro market level and to develop a network of thinkers and practitioners in this area that will be able to work with national and international experts to explore how new metrics for local level informal economy analysis could be developed. This paper will serve as the platform for this endeavor.

The paper considers the prospects for developing new information tools to better inform public and private sector interventions in the urban informal economy by examining a wide range of literature on contemporary methods for measuring local informal economic activity. It begins by charting the evolution of definitions of the informal economy from its simplistic and dualistic origins to a growing appreciation of its complexity and interconnectedness with formal economic activity.

The paper then examines the various methods for estimating the size of the informal economy developed over the years. The most widely used method for measuring local urban informal economies are surveys, either of households or labor forces. A vast majority of these surveys have been conducted in cities in the developing world, largely because of a dearth of data on economic activities in these cities. Relatively little survey research has been done on informal economic activities in US cities which has greatly hindered understanding of the issue domestically.

If surveys represent the direct methods for measuring informal activity, then there are several indirect methods that have been developed over the past thirty years, often designed to capture informal economic activity at the macro level. Labor and employment statistics, electricity consumption, cash versus credit activities, income and expenditure ratios, local proxies and other statistical analyses have all been employed to estimate the contribution of informal economic activities. The paper speculates how many of these methods intended for macro-level estimations might be applied to micro-market analyses and identifies possible data sources.

It continues by exploring some of the reasons why measuring the urban informal economy is important. The paper concludes by suggesting that relatively little is known about the urban informal economy and its manifestations in U.S. cities. For this reason, much greater research is required to understand the size, determinants and implications of the informal economy to better inform public and private sector policy and investment interventions.

II. UNDERSTANDING THE URBAN INFORMAL ECONOMY

For over 35 years, since it sponsored the employment mission to Kenya where Keith Hart, a British anthropologist, first 'identified' the informal sector during research in Accra, Ghana, the International Labour Organization (ILO) has presided over the international research and policy agenda by propelling broader understanding of the informal economy among governments, economists, statisticians and non governmental organizations (NGOs). This section reviews the definitions of the informal economy developed by the ILO and other organizations, referring to them as proxies for the evolution of our understanding of the informal economy. We show that contemporary definitions of the informal economy illustrate that our understanding of the phenomena has advanced significantly since the primitive descriptive and dualistic definitions of the early 1970s.

2.1 "Discovery" of the Informal Economy

Historically, studies of the informal economy have largely had a strong urban focus, even before its initial "discovery" in the early 1970s. Although it was Keith Hart, an anthropologist, who first coined the term "informal sector" to describe the scope of unregistered economic activity operating in Accra, Ghana (Hart 1973), Hart himself stipulates that their had been studies and observations of the "economy of the street" decades before, including Henry Mayhew's work in Victorian London (Mayhew 1861-2) and W.F. Whyte's study in America (Whyte 1943) (see Hart 1987). Recent research looking at urban colonial India found that the informal economy was "an overwhelming and enduring reality" (Gooptu 2001). Nevertheless, Hart's terminology set up the neat and persistent dualism (formal/informal) that resonated with the ILO at the time and spawned the Dualist perspective (the first of three perspectives, the others being the Structuralist and Legalist perspectives) on the informal economy and its relationship with the formal economy.

2.2 Evolving Definitions of the Informal Economy

According to Dualists, "the informal economy is a separate marginal economy not directly linked to the formal economy, providing income or a safety net for the poor" (ILO 1972). In the 1970s and 1980s, the Structuralist School emerged and identified the informal economy as subordinated economic activity to the formal economy. Informal enterprises and workers reduce costs for formal enterprises and subsequently increase their competitiveness. This perspective views the informal and formal sectors as inextricably connected and interdependent (Castells and Portes 1989). Finally, in the late 1980s and 1990s, the Legalist School gained popularity during the ascent of neo-liberal economic policies. According to this school of thought, micro-entrepreneurs will continue to produce informally so long as government procedures are cumbersome and costly. In this view, unreasonable government rules and regulations stifle private enterprise (de Soto 1989).

An expanded analysis of the informal economy, or more specifically the enterprise element of it, can be reached, by examining its sectors - the household sector, the informal sector, the underground sector and the criminal sector (Thomas 2001). In the household sector, goods and

services are produced and consumed in the home and do not appear in the open market. The informal sector produces legal goods and services in an unregulated environment. The underground sector also produces legal goods and services though the processes of production and distribution may be illegal; for example, selling goods without a necessary permit or evading taxes. Finally, the criminal sector both produces illegal goods and distributes those goods illegally. Although these categorizations may overlap, they do still provide a useful framework for identifying the kinds of activities that take place in the informal economy.

While Thomas' definitions revolve around conceptions of informal enterprises, the most recent definition of the informal economy approved at the 2002 International Labour Conference (ILC) (and endorsed by the 2003 International Conference of Labour Statisticians) is far broader than previous definitions and includes the incorporation of certain types of informal employment (Chen, 2004). Working with the organization Women in Informal Employment: Globalizing and Organizing (WIEGO), the ILO's expanded definition acknowledges that the informal worker often performs the same work as the formal worker, but does so in an environment that is unregulated and unprotected. "A majority of all workers in the world are in this same situation; they work in informal enterprises as well as in informal jobs (jobs that pay no benefits or provide no social protection)" (Chen, 2001).

In 2002, the ILC defined the "informal economy" as "all economic activities by workers and economic units that are – in law or in practice – not covered or insufficiently covered by formal arrangements" (ILO 2002). In short therefore, the ILO's expanded definition "includes the whole of informality, as it is manifested in industrialized, transition and developing economies and the real world dynamics in labor markets today, particularly the employment arrangements of the working poor" (Chen 2004). The new definition broadens the focus from just looking at the characteristics of unregulated enterprises (e.g. income, sector analysis) to include unregulated, employment relationships (e.g. home workers, day laborers). While some may think this definition too broad, it does increase the breadth of activity normally associated with the informal economy and emphasizes the multi-lateral and complex nature of the linkages between informal and formal economies.

Although this expanded notion of the informal economy encompasses a spectrum of economic activity, the majority of individuals acting within the informal economy—unpaid family workers, employees of informal enterprises, industrial workers and home workers—remain invisible and unseen (Chen 2004), making the task of measuring their activities and the allied implications, both positive and negative, for urban economies all the more difficult but all the more important. Other theoretical viewpoints have also emerged recently to expand understanding still further.

2.3 *Emerging Conceptualizations and Challenges in Defining the Urban Informal Economy*

2.3.1 Hybridization of Urban Formal and Informal Economic Activity

The activities of the street vendor, so often the iconic focus of study in urban informal economic research (Bhowmik 2003; Hunter and Skinner 2003; Anjaria 2006), is again a useful metaphor for the emerging theories of a group of scholars who are rethinking the linkages between

the formal and informal economy (Chen 2005; Williams 2006). In the streets of most major American cities, street vendors sell a vast array of products and services including food, electrical goods and clothing. Some of these goods may have been produced by unregulated home workers (Chen, Sebstad and O'Connell 1999; Baden 2001). In the case of electrical goods and mass produced clothing items, manufacturing companies (often based in other countries) that purchase inputs and distribute goods through the formal economy also use informal labor, often in the form of sweatshops or home workers, to produce their goods. In another example, workers may simultaneously be employed in both the formal and informal economies. An agency elementary teacher, who covers for sick teachers and is therefore an employee of the government during the day, may also earn unreported income for tutoring children in the evenings as a self-employed person. Quite apart from highlighting the increasingly globalized nature of everyday urban market transactions, the flexibility of contemporary employment or the emerging economic force of undocumented or "invisible" workers in American cities, these examples, illustrative of the nexus between the informal and formal economies, demonstrate that the informal economy is an interrelated and interdependent component of all official economic activity. The informal economy fuels demand for formally produced goods and services, such as garments or math tutoring.

2.3.2 Informalization of Urban Space

There is a growing appreciation among scholars in urban development and design, especially those involved with the "Everyday Urbanism" movement (Kaliski, 1999), of the "domestication" of urban space driven largely by informal economic activities (Mehrotra, 2004). Street vending activities and its variations have compelled academics to define their impact on the "brutal" urban environment in a positive light, hailing their contribution to the "refamiliarization" of America's cities. As Margaret Crawford observed (Mehrotra, 2004):

> *Refamiliarization flourishes on the streets of Los Angeles, a by-product of residents' economic and cultural activities. For example, every Valentine's Day, Mother's Day, and Martin Luther King Day, vendors load up U-Hauls with crafts that they spent the rest of the year making in their homes. They sell them from an unused parking lot … on a major six-lane street in an African-American neighborhood…Products based on African or African-American imagery articulate the neighborhoods social narratives and cultural values. Other vendors sell used clothes from chain link fences…Cheap rugs cover the harshness of chain link fences, overlaying it with soft textures and bright patterns of the interior. On the sidewalk, apron-clad vendors sell tamales prepared at home, extending the domestic economy into urban space. Once recognized, these examples suggest ways in which designers might think about blurring other boundaries between public and private space.*

The benefits of informal economic activity as seen through the Everyday Urbanism movement can be defined visually and functionally through the lens of urban design and once better understood, could have very real implications for "place-making" in cities.

2.3.3 Are our Cities, Formalizing or Informalizing?

Over the last 35 years, the ILO in particular has presided over, conducted and sponsored hundreds of studies, often using field surveys, to better understand the myriad of social, economic, environmental and political issues relating to the informal economy in cities. Most of this research has primarily been focused on cities in less developed countries, most notably in Ahmedabad, India (Unni and Jacob 1999), Dar es Salaam, Tanzania (Kukindo and Estrella-Gust 1994), Delhi, India (Mitra 2004), Durban, South Africa (Lund and Skinner 2004), Jakarta, Indonesia (Angelini and Hirose 2004), Johannesburg, South Africa (Motala 2002; Rogerson 2004), Lima, Peru, (Zuin 2004), Manila, Philippines, (Gopal 1997; Labajo 1996) and Shanghai, China (Howell 2002).[1]

The fact that so much research has focused on urban informal activity in less developed countries can be attributed to a familiar notion in development. The widely held view of those who work in and study urban economic development is that the more "advanced" an urban economy becomes, the greater the inevitability of the shift of economic activity from informal to formal spheres. Based on this assumption, "backward" Third World cities will generate more informal economic activity than their more "advanced" urban counterparts in more developed countries, and are therefore, more "worthy" of research (Williams and Windebank 2001). However, increasingly in the so-called 'advanced' urban economies, the emerging contractual and short-term nature of employment (Sassen 1991), rising levels of unemployment and underemployment[2], and the retrenchment of expenditure on metropolitan administration and welfare services[3] are all trends pointing toward the informalization of urban areas. However, the problem is that there is very little solid evidence to support this view (Williams and Windebank 2001). As will be discussed later in the paper, indirect, largely macro-economic attempts at measuring the informal economy have produced highly differentiated estimates[4] and in any case, have rarely, if ever, been used to measure informal economic activity in cities. In contrast, "direct" methods like surveys have rarely been conducted to measure informal economic activity in the U.S. In addition, while surveys are good at generating rich information at the local level, they are nevertheless only snapshots making it difficult to derive from them any kind of trend analysis.

2.4 We have the definition….what next?

The authors of this literature review are in agreement with the need for broader definitions of informal economic activity and therefore support the ILO's most recent expansion to include both enterprise and employment components in their definition. Without this more complete grasp of all the components and activities of the informal economy, development of robust local level

[1] The ILO has both funded and compiled an enormous number of research papers in this area, many of which can be found at http://www.ilo.org/dyn/infoecon/iebrowse.list?p_lang=en.
[2] Between 1965 and 1995 in the European Union, the share of the working age population with a job fell from 65.2% to 60.4%.
[3] Federal funding for the United States Department for Housing and Urban Development is again on the decline with the department's fiscal budget falling from $31.3 billion in 2005, to $28.5 billion in 2006, a fall of $2.8 billion. See Chief Financial Officer reports at http://www.hud.gov/offices/cfo/reports/cforept.cfm.
[4] Various macro-economic indirect methods produced estimates of the informal economy ranging from between 6.2% to 19.4% of US GDP between 1986 and 1990 (Schneider 2000).

measurement, policy and investment interventions will remain stunted and ignorant of “invisible” urban issues; a persistent blind spot for governments, local and national.

However, the very scope of current, widely accepted definitions—to include both informal enterprises and informal employment relations—brings new challenges and obligations to those interested in quantifying urban informal economic activity at a local level. The countless documented descriptions of informal economic activity, its variation between cities in developed and less developed countries and emerging questions over some of the assumptions that have formed the basis of most of the research into the informal economy collude to shroud the pathway toward progressive interventions. In the United States, for instance, identifying economic activities by workers or economic units that are not covered by formal arrangements should not just result in the traditional response of punitive regulations and policies that seek to chastise informal economy participants as drivers of lost tax revenue. Instead, a better understanding of the size and causes of informal economic activity should also identify opportunities for positive interventions, for example, new channels of formal support for unregulated small businesses as potential drivers of new tax revenue and neighborhood wealth creation.

While meta-definitions of the informal economy are important to supporting principles and international comparison, the spectrum of policy implications of these definitions needs further investigation. In the next section, we assess the prospects for developing new methods for measuring all aspects of urban informal economy activity and attempt to understand how they might drive positive change in cities by evaluating their suitability for identifying opportunities for constructive engagement and not just endorsing the need for even more punitive measures.

III. METHODS TO ESTIMATE THE SIZE OF THE URBAN INFORMAL ECONOMY

As mentioned previously, this paper focuses solely on methods for measuring the informal economy in urban areas as well as evaluating their suitability for doing so.

4.1 Direct Methods

4.1.1 Surveys

Surveys have been widely used as a means of collecting data on all aspects of the urban informal economy from its size and determinants to its characteristics and implications for urban areas. Depending on scope, time and budget, they can be deployed at both national and local levels. In developing countries, where other forms of institutionalized and systemized data is less reliable, surveys have been the primary source of data on a growing number of issues connected with the urban informal economic activity providing insights into labor exploitation, sexual harassment, and poor working conditions; enhancing comparability of data, micro-finance, micro-insurance, micro-entrepreneurs; and understanding profiles of rural and urban informal sectors in terms of size, determinants, characteristics, workers rights, labor regulations, gender equality issues, public health, home-based production, labor unionization, immigrant workforces, migration, formal small businesses, traditional livelihoods, social co-operatives, the conduct of multinational companies, and urban infrastructure.

Surveys have also been used in the United States as a means of measuring informal economic activity, though often in a rural rather than an urban context (Jensen et al., 1995, Nelson and Smith, 1999 and Tickamyer and Wood, 1998 and 2003). One of the most commonly cited criticisms of surveys as a means of collecting data on the informal economy is that its success hinges greatly on the respondent's willingness to cooperate. It is difficult to assess the rise of the undeclared work from a direct questionnaire. Most people interviewed hesitate to confess fraudulent behavior and quite often responses are rarely reliable so that it is difficult, from these types of answers, to calculate a real estimate – in monetary terms – of the extent of undeclared work (Schneider, 2002). However, there are several detractors from this view who claim that respondents may not be as secretive as expected about their cash-in-hand work (MacDonald, 1994 and Williams and Windebank, 2001). Another disadvantage is that surveys are costly, time consuming and difficult. Finally, by their very nature, surveys offer snapshot glimpses of informal economic activity making it difficult to extrapolate trends on its size and development (Schneider, 2002).

4.1.2 Tax Auditing

The Tax Auditing method determines the size of the informal economy by measuring the residual between income declared for tax purposes and that measured by institutional checks (like Federal fiscal auditing programs for instance). A number of difficulties beset this approach. Firstly, using tax compliance data is equivalent to using a (possibly biased) sample of the population. Since in general a selection of tax payers for tax audit is not random, but based on properties of submitted

tax returns which indicate a certain likelihood of tax fraud, such a sample is not a random one of the whole population. This factor is likely to bias compliance–based estimates of the informal economy. Secondly, estimates based on tax audits reflect that portion of informal economy income which the authorities succeeded in discovering and this is likely to be only a fraction of the hidden income (Schneider 2002).

4.2 Indirect/Indicator/Proxy Methods

4.2.1 Labor Market Analysis

If data is both accessible and available, labor market analysis can give strong clues as to the size and composition of the informal economy workforce in urban areas. In the United States, for instance, the Economic Roundtable, a research think tank in Los Angeles, combined different locally focused methods to support their estimates of the size of Los Angeles County's informal labor force (Joassart-Marcelli and Flaming 2003). They used multiple datasets to measure the residual between the number of jobs and the number of people working. To determine the number of jobs in the County, the study relied on ES-202 data[5] from the California Employment Development Department. This data measures the number of jobs reported by businesses in the county. Though difficult to get disaggregated at the neighborhood level, this data is at least available at the county level. The Current Population Survey (CPS) from the U.S. Census Bureau is regularly updated survey data that is available during the years between the decennial censuses. CPS data is used to determine the number of employed persons in the county. Essentially, through developing nine different scenarios based on varying assumptions of who was employed and who wasn't, the Roundtable found that the residual between the number of jobs reported by employers and the employment levels reported by employees signaled that informal employment could account for between 9 and 29 percent of LA County's employment. This has enormous implications in terms of the buying power generated by informal labor.

In addition, using Regional Account data available from the U.S. Bureau of Economic Analysis, researchers also looked at the U.S. labor force structure compared to that of Los Angeles County. Where the proportion of the number of businesses from a particular industry was much larger than the reported number of workers in that particular industry, it was inferred that informal workers were present but undocumented. These data are ideal for studying the informal economy at the county level and give important insights into the size and characteristics of the informal economy. In addition, all sets of data used are updated and published regularly which is very useful for analyzing trends in informal economic activity. The one major drawback to this method is that the

[5] The Quarterly Census of Employment and Wages (QCEW), or ES202, program is the product of a Federal-State cooperative program and essentially records employment numbers according to the employers. State Employment Security Agencies collect the data from reports filed by employers each quarter and sends these data to the U.S. Department of Labor's Bureau of Labor Statistics (BLS). The QCEW program produces a comprehensive tabulation of employment and wage information for workers covered by State unemployment insurance (UI) laws and Federal workers covered by the Unemployment Compensation for Federal Employees (UCFE) program.

data used is only disaggregated to the county level in the United States, and not to the municipal level making urban informal sector analysis more difficult. In addition, there is a risk of double counting as workers may be working in both the formal and informal economies.

4.2.2 Currency Demand Analysis

One of the most popular and evolving methods of measuring the informal economy is the currency demand approach (Schneider and Enste 2000). The foundation of this method is based on the assumption that informal economic transactions are made in cash (Cagan 1958). By looking at the correlation between the demand for U.S. currency and tax pressure, estimates are made on the size of the informal economy. This method of originally looking at the ratios of currency demand to tax burden evolved to econometric models controlling for payment habits, interest rates and other relevant variables (Tanzi, 1980). An increase in the informal economy was correlated with an increase in currency demand in the equation. The currency demand method later evolved to compare circulating currency with U.S. GDP, replacing tax pressure. Eventually the model evolved yet again to control for U.S. currency abroad growing with globalization. Other monetary indicators include the number of large denomination notes in circulation, the cash-deposit ratio, or level of money transactions.

Though accepted as a strong method for estimating the size of the informal economy, the currency demand approach creates a few challenges in national and micro market estimations. First, while the majority of transactions in the informal economy are in cash, it is not 100%. Researchers have found that about 80% of transactions are made in cash (Isachsen and Strom, 1980). Second, the method assumes that the base year of comparison of the ratios of cash demand to either tax pressure or U.S. GDP did not have an informal economy (Schneider, 2002). The method does not provide evidence supporting this assumption. Third, the continued growth of the U.S. dollar as an international currency has made tracking dollars outside of the U.S. an inexact science (Feige 1996). Finally, the largest challenge in using the currency demand method for quantifying neighborhood informal economies is that it is a macro approach. Neighborhoods, or micro markets, characterized by mobile populations and fluid boundaries, are too small an area in which to determine currency demand.

4.2.3 Electricity Consumption

The electricity consumption method assumes that the best physical indicator of economic activity is electricity consumption (Kaufmann and Kaliberda 1996). Similar to the currency demand method, the electricity consumption method looks at the relationship between electricity consumption and GDP. After empirically showing electricity consumption and GDP share the same elasticity, the difference in growth of GDP and electricity use is attributed to the informal economy.

This method yields estimates of the size of the informal economy, but like the currency demand method, raises some challenges. In his critique of the method, Schneider argues that not all informal activity requires electricity. The distribution of goods on the street is one example of a

common practice that requires little or no electricity. Second, the elasticity of electricity consumption is volatile depending upon the respective market, the efficiency of electricity distribution and the machines in use (Schneider 2002). Thirdly, as with the currency demand method, the main challenge is that this method, based on GDP, is a macro-level approach to quantifying the informal economy at the national level. However, an electricity consumption method, or an adaptation to water or telephone usage, may easily be employed at the micro market level where it can be correlated with local transactional data. Utility consumption data might be made available at lower geographies, which would support neighborhood level analysis. The availability of this data is often dependent upon regulations of state utility commissions and whether or not the utility is publicly or privately owned. In some instances, publicly owned utilities make available data at the address level for research focused on the public good.

4.2.4 Neighborhood Proxies Approach

Social Compact is a non-profit organization based in Washington, DC that conducts innovative market analysis designed to uncover market strengths and investment opportunities missed by traditional market analysis techniques. Through its “DrillDown” analysis, Social Compact uses multiple data from public and private sources to build real time market profiles of low-income areas, often undercounted by census analysis and underestimated by commercial market analysis methods. In over 100 low-income communities, Social Compact has used the “DrillDown” analysis to show that many inner city markets are much larger, safer, and with far greater buying power than previously thought. A critical component of Social Compact’s analysis is the employment of its informal economy model that estimates income not captured by mainstream analyses.

Social Compact’s model uses proxies (measurable at the neighborhood level) of informal activity to estimate the income generated by that activity that may have been missed in census and census upgrade profiling. The model’s proxies have expanded over the eight years it has been employed but the methodology has essentially remained the same.

Currently, Social Compact measures eight proxies, using a combination of publicly and privately available data, to estimate local informal economy activity and associated income, these include:

- Percentage of households with a total income of less than $30,000
- Ratio of household expenditures over income
- Percentage of households with no banking relationships or credit histories
- Percentage of utility payments made in cash
- The prevalence of check-casher operations per acre in the profiled neighborhood
- The prevalence of check-casher operations per household in the profiled neighborhood
- Modeled versus actual housing costs
- Percentage of the neighborhood’s population that is foreign born

Once collected, these eight proxies are then weighted using a points scoring system based on the results of Social Compact's original work in four diverse Chicago neighborhoods. Social Compact identified the proxies through surveys of local residents and interviews with local community development practitioners in Chicago. The scale was weighted such that the Chicago neighborhood that exhibited the highest index for a particular indicator was considered the top value (represented 100% of possible points). The points scoring system amounts to a total of 10 possible points, with the proxies accorded the following values in the system:

- Percentage of households with a total income of less than $30,000 (1 point): top value 45%
- Ratio of household expenditures over income (1 point): top value 120%
- Percentage of households with no banking relationships or credit histories (2 points): top value 75%
- Percentage of utility payments made in cash (1 point): top value 100%
- The prevalence of check-casher operations per acre in the profiled neighborhood (0.5 points): top value is a sliding scale between 1 check casher per 100 acres (100%) and 1 check casher per 250 acres (0%)
- The prevalence of check-casher operations per household in the profiled neighborhood (0.5 points): top value is a sliding scale between 1 check casher per 1000 households (100%) and 1 check casher per 2500 households (0%)
- Modeled versus actual housing costs (2 points): top value 100%
- Percentage of the neighborhood's population that is foreign born (2 points): top value 80%

The Neighborhood Proxies Model has been effective at sensitizing public and private sector decision makers to the urban informal economy as a generator of missed income in low-income communities. Nevertheless, the methodology has some major draw backs. Primarily, the model provides estimates as to the income generated by a neighborhood's informal economy while giving no clue as to its determinants, size (in terms of work force and by industry sector), and characteristics, therefore limiting its use value to policy makers. In addition, it is limited by the number of available local data sources, for example, data on remittance payments by local residents and the size of the undocumented population would enhance the proxies for informal economic activity captured by the model.

Social Compact is constantly investigating ways of improving its informal economy assessment capabilities. Recently, the organization conducted a series of statistical tests with the data from Social Compact's most recent market profile project, the Santa Ana DrillDown[6]. The results of this testing strongly suggested that the combination of the eight indicators listed above do generate an accurate and reliable method to predict the presence and size of income generated by the informal economy, treating the difference between household expenditures and household income as an indicator of the phenomenon in question.[7] However, this same analysis suggests the

[6] Santa Ana, CA

[7] The combination of these eight variables provides the most reliable adjusted R square when compared to all other possible combinations. The only other combination that provides an equally reliable adjusted R square is a combination that does not include the percentage of utility payments made in cash. The reason for this result

weighting system developed during the Chicago DrillDown may be limiting opportunities to more broadly assess urban informal economic activity. For this reason, Social Compact is currently developing new methods of measurement including using variations derived from the DYMIMIC (Dynamic Multiple-Indicators Multiple Causes) model (explained next).

4.2.5 Dynamic Multiple Indicators/Multiple Causes Modeling (DYMIMIC)

There are two consistent limitations in many of the macro-economic methods for measuring the informal economy highlighted so far. The first is that most of these methods are limited to using just one indicator—currency demand levels, electricity consumption or unreported labor activity for example—to capture all informal economic activity. Intuitively, it might be expected that indications of informal economic activity would show up to varying degrees, in all these indicators simultaneously, in currency demand, electricity consumption and labor discrepancies. Secondly, the models often do not take into account the determinants or causes of informal economic activity. Where they do, in the currency demand model for example, it is usually only the effect of taxation that gets factored into the estimate (Schneider 2002). The Dynamic Multiple-Indicator Multiple-Causes (DYMIMIC) model has been developed over the past 25 years to address these limitations by factoring in the multiple determinants and indicators of informal economic activity (Frey, 1984).

DYMIMIC is "based on the statistical theory of unobserved variables, which considers multiple causes and multiple indicators of the phenomenon to be measured" (Schneider 2002).[8] The unobserved variable in this case is the informal economy and the model assumes that the informal economy is influenced by a number of different factors. This model has several key advantages. The first is that it has an intuitive quality in that it utilizes multiple data sources to capture as many components of informal economic activity, an important asset when trying to measure an "elusive" phenomena such as the informal economy. The second advantage is that the model can determine both the size and development of informal economic activity over time. The third intriguing aspect of DYMIMIC is its potential to be deployed at local levels. So far, the model has been used to measure informal economic activity at the national level (Giles and Tedds 2002) factoring in multiple causes like the tax burden, levels of regulation and tax morality (the citizen's attitude toward the state), and multiple monetary, labor market and economic production indicators. However, as Social Compact has shown with its Neighborhood Proxies Approach, there are a number of disaggregated data sources available in the United States to assess the scope of informal economic activity at the neighborhood level using DYMIMIC, as figure 1 illustrates.

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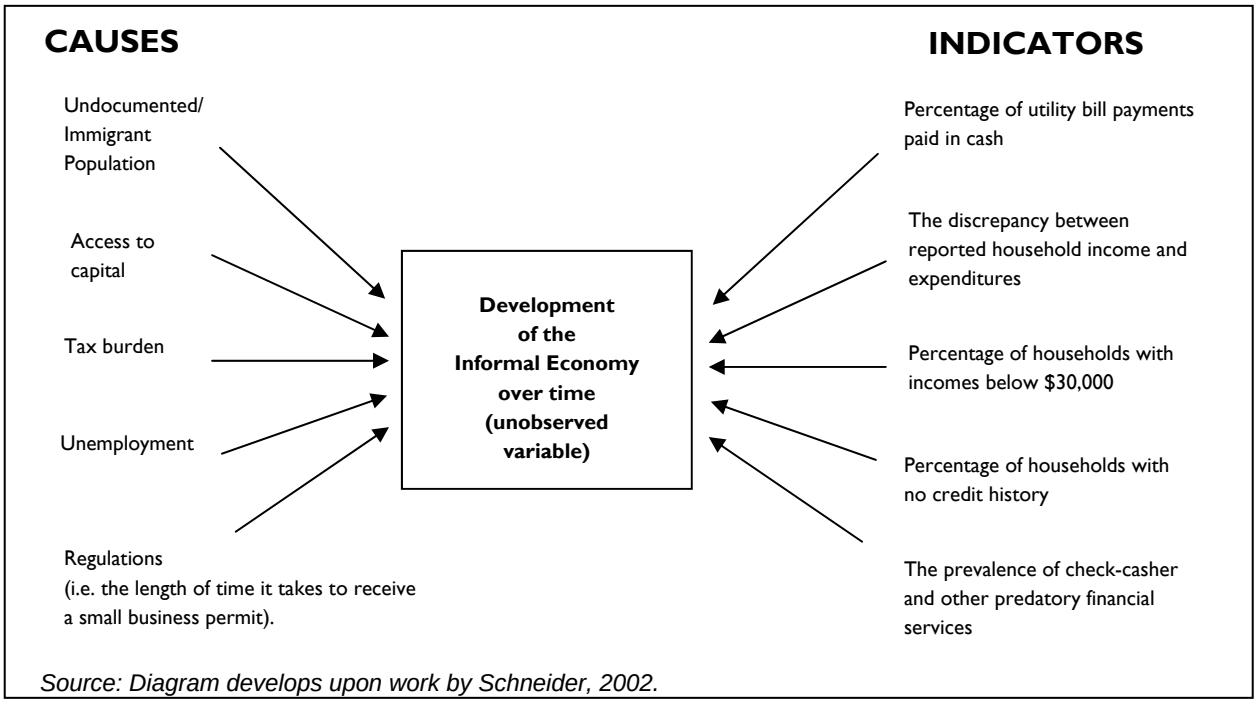
is that the variable in discussion is a constant in the case of Santa Ana's neighborhoods. Given that theory implies that cash utility payments are likely to help predict the presence of informal economy, Social Compact believes it should be included in the model for cases in which the variable is not a constant. Moreover, it is important to note that the while difference between household expenditures and household income does not equate to the informal economy, this difference appears to be a measurable and trustworthy indicator of its existence.

[8] The DYMIMIC (dynamic multiple-indicators multiple-causes) model consists in general of two parts, the measurement model links the unobserved variables to observed indicators. The structural equations model specifies causal relationships among the unobserved variables (the informal economy) (Schneider 2002).

Figure 1. Development of a Community Informal Economy over time using DYMIMIC



Source: Diagram develops upon work by Schneider, 2002.

Preliminary research suggests that DYMIMIC could be applicable to neighborhood level analysis in the United States. However, the model does have its disadvantages. For one, it has not been tested in a localized setting. Furthermore, while DYMIMIC does advance the use of multiple data sets to capture more components of urban informal economic activity, more qualitative and quantitative research is required in the United States, to ensure that the most appropriate 'causes' and 'indicators' are identified.

4.2.6 Income versus Expenditure Discrepancies

National accounts statisticians have used national figures on income versus expenditures to estimate the size of the informal economy (Park 1979). If the expenditure level is higher than the income level, then economists and statisticians have used that as an indicator of the scale of income generated by the informal economy. For instance, American households earning less than $30,000 annually consume between 125% and 200% of their stated income (some of which might be attributed to informal income, taking into account spending financed by credit card or other forms of debt)[9]. In the United States, at least, because of census data on household incomes can be disaggregated to smaller geographies, it is possible to use the United States Consumer expenditure survey to determine the residual between reported incomes and estimated expenditures in neighborhoods. However, the method is basic and only estimates the size of the informal economy

[9] See 2003 U.S Consumer Expenditure Survey

and does not shed light on either the determinants or the characteristics of the informal economy. In addition, the method does not take into account errors and omissions in income reporting.

Appendix A gives a brief overview of all of the methods identified so far, including their potential applicability to local level analysis and the advantages and disadvantages of the method.

IV. WHY ACCURATELY MEASURING THE URBAN INFORMAL ECONOMY IS IMPORTANT

4.1 Benefits and Barriers to Formalization

The complex interplays and power geometries between the myriad of economic actors participating in the informal economy (the street vendor, the home-based worker, the sewing machinist, the day laborer) give some indication of the difficulty in establishing a common definition of the informal economy and the challenging task of harmonizing methods of measuring informal activity at the local level. However, advancing the understanding of the scale of the informal economy, its intricacies, and its contribution to local and global economies must compel public, private and non-profit agencies to overcome these difficulties as well as to work collaboratively to determine a comprehensive methodology. For example, an accurate measure of the informal economy can aid governments in identifying uncollected tax revenue and estimate a more exact GDP. In the United States, the informal economy is one of the largest growth sectors, comprising up to 25% of the nation's GDP, according to some estimates (Losby et al 2002). In 1998, the Internal Revenue Service (IRS) quantified revenue losses at $195 billion – most of which was believed to be the result of transactions taking place in the informal economy.[10] The California Franchise Tax Board estimated that over $255 billion in taxes, nationally, go unpaid due to informal economic activity.[11]

In addition to benefits to governments, urban community development would also stand to gain. Accurate measurements of a community's total economic activity may attract new investment and could assist policy makers in identifying those barriers that prevent small and medium enterprises (SME) from entering the formal market. Increased information on small businesses operating in under-regulated environments might encourage the engagement of mainstream small business lenders.

A small business operating in a highly unregulated economic environment faces a number of barriers to formalization. Inhibited access, due to poor financial literacy, lack of appropriate facilities, or the fact that financial institutions simply do not have bank branches in the vicinity, prevents the small business owner from formalizing his or her enterprise by obtaining affordable, small business loans. Other impediments include regulatory barriers such as health standards or bureaucratic barriers such as the time and effort required to obtain a business license. While regulations and permits exist to aid government in collecting revenue or to protect public health for example, badly planned or executed public processes become additional barriers that increase the cost of formalizing an informal enterprise. In some U.S. cities, it can take up to six months to receive a business permit from the city. Punitive measures for tackling street vendors for example, will either push the practice further underground or make it impossible for the vendor to operate at all, removing all chance for potential tax revenue in the future. Progressive measures identify the impediments that prevent the vendor from operating his/her business in the formal economy and

[10] http://www.irs.gov.
[11] California Franchise Tax Board (2004), *Frequently Asked Question About the Tax Gap*.

devise new channels of support that nurture enterprise, promote formalization, and ultimately, increases tax revenues.

On the supply side, because there is so little market data on unregulated economic activity, traditional market analyses models used by retailers and financial institutions overlook the significant buying power generated by the local informal economy and therefore misinform private sector investment decisions. Information gaps and poor market data can drastically influence the economic prospects of neighborhoods in the U.S., particularly in low income areas where traditional demographic data does not accurately capture market potential. The void draws predatory lenders offering sub-standard financial products, missed market opportunities for financial institutions, and above all, missed opportunities to nurture small business growth and encourage indigenous economic development and wealth creation. The opportunity costs of operating in the informal economy in this situation may very likely exceed the additional regulatory costs of moving into the formal economy.

Contrary to the perspective of those belonging to the legalist school of thought, informal economic activity is not solely fueled by the desire to circumvent government taxes and regulation. Rather, many informal employers and workers remain in the informal economy due to the aforementioned barriers to formalization, or circumstantial matters requiring that they do so in order to survive. Many informal actors may welcome entry into the formalized economy, as they stand to gain certain benefits such as increased wages, better working conditions, and financial assistance in the form of small business loans.

In an ideal world, barriers to entry would be completely removed allowing unimpeded capital flow between financial institutions and entrepreneurs, efficient and effective government processes, and access to good market data. Realistically, policy makers can focus efforts on shifting the barrier to entry, especially the cost of entry. By improving the dissemination of relevant data, such as market data to financial institutions and financial literacy to entrepreneurs, a greater proportion of unregulated economic activity can be captured and factored into policy and investment decisions. Better understanding the interchange between the informal and formal economy will assist governments and others to develop a regulatory framework to support the benefits of the informal economy while mitigating its negative aspects.

A new vernacular is also required to endorse efforts for the broader, more constructive policy and investment interventions highlighted above. So broad is the current definition that the term “informal economy” can have very different connotations to different constituencies. It is not inconceivable, for instance, to imagine a campaigner for better protection for working women in Calcutta talking to an advocate for micro-enterprise in Los Angeles and for both to think that *they* are talking about the *real* informal economy. In the United States, measuring local informal economies is a chance to identify overlooked buying power, reform small business development and challenge policy makers to devise innovative solutions of poverty.

4.2 Current Efforts

Such efforts are emerging both at the national and the local level. In the UK, a 2005 report, "Informal Economic Activities in Deprived Neighbourhoods," encourages the national government to think more proactively about the channels it uses to engage with the informal sector. The report emphasizes the means through which the informal economy serves as a cornerstone of economic activity in low-income areas. The authors argue that new policies are needed to begin to formalize sections of the informal economy, or "black economy," as it is known in the U.K. Measurement of the informal economy in the U.K. to date has been based on macro level analysis of expenditure and income. Measurement of the informal economy at a microeconomic level has only ever been attempted at a ward[12] level in three locations across England, not including any London Boroughs. Community Links, an innovative inner city charity running community-based projects in east London, has been the first to measure the size of informal economic activity of the overall workforce (age 16-64) at a borough level in the U.K The study estimated that one in four workers work in the informal economy (see Community Links 2006).

In South Africa, the local government in the City of Durban is developing a regulatory and business climate for informal enterprises by designing programs to support informal entrepreneurs to grow their business. Efforts include: providing permanent sites for street traders; charging fees, in lieu of taxes, for these sites; decentralizing the business registration process to make it more convenient for informal enterprises to register with government; and assisting with market development and financing programs. The government recognized that the needs of formal and informal enterprises are similar; both require secure locations, transparent contracts providing access to those locations, and a reliable set of services such as lighting, water, toilets, garbage removal, security and storage.

In Mexico City, the local municipal government has set up a dedicated administrative structure to permit locations for street vendors and provide short training programs for vendors of prepared food. In Los Angeles, a public private partnership between the city and the religious community established a program to promote sidewalk vending as a means of facilitating neighborhood revitalization, providing entrepreneurial training, and small business development for community residents.

In cases where there has been a concerted effort to positively measure the informal economy at the community level, private sector investment has followed. In New York City, a private sector study led by one of the city's banks, documented an unreported informal economy in Harlem exceeding one billion dollars (Social Compact 2001.) This study provided the bank with the necessary data to open two new branches on 125th Street, the heart of Harlem's commercial district.

In each of the aforementioned cases, there is an acknowledgment, at all levels of government, that the informal economy is inextricably linked to the formal economy. Greater interaction between government and the informal sector could result in regulations tailored to alleviate poor and unsafe labor conditions, common in informal work environments, while supporting

[12] A 'ward' is the primary unit of administrative and electoral geography in the UK.

small business growth. For these reasons, it is important to develop the tools to accurately measure informal activity.

In 2004, Social Compact identified an informal economy in East Oakland, California, that generated an estimated $130 million annually in household income (Social Compact 2005). More recently, it identified an informal economy in two study areas of Santa Ana, California that exceeded $183 million (Social Compact 2006). Cumulatively, the organization has identified an informal economy of $4.4 billion in over 100 urban neighborhoods across the nation.[13] In a separate study, the Economic Roundtable, an economic research organization that studies the Los Angeles regional economy, asserts that the formal sector in Los Angeles County is stagnated, while the informal economy is responsible for the economic growth of the county (Joassart-Marcelli and Flaming 2003). They estimate "that on a typical day in 2004 there were 679,000 informal workers in the county and 303,800 in the city. These workers are estimated to account for 15 percent of the county labor force and 16 percent of the city's labor force" (Haydamack and Flaming 2003).

Findings of this magnitude are essential for policy and investment decision makers to better understand urban markets, especially underserved and disinvested inner city and immigrant markets, where the informal economy tends to be most robust. These findings address a common challenge to inner city development in the United States – that of demonstrating sufficient household income or an adequate customer base to support essential financial services and retail businesses. Capturing the full measure of a community's economy, both formal and informal, provides decision makers with the information needed to channel the right investment and regulation into underserved neighborhoods.

[13] Chicago, Cleveland, Houston, Jacksonville, New York City, Oakland, Santa Ana, and Washington, DC.

V. CONCLUSION

In 2000, approximately 47 percent of the world's population lived in urban areas and it is expected that 60 percent of the world population will be urban by 2030. Developing a toolbox of services to meet the material needs of urban residents will be a continuing challenge, particularly in today's underserved markets. While inputs that affect community development may be influenced at the national or international level (i.e. patterns of migration, interest rates, or supply chains), development occurs at the local level. Normalizing street markets in Los Angeles, providing micro-loans to self-employed seamstresses in Houston, or opening a grocery store in an inner-city San Francisco community are not only examples of how development happens at the local level but also are illustrative of how the informal and formal economy intersect.

A deeper understanding of how the informal economy operates, its size and how it interacts with formal economic activity at the community level, will aid investors and policy makers by making accurate information readily available. As this review describes above, there are a range of methods and approaches used to measure the informal economy. Efforts to measure the informal economy at the national level can assist policy makers on a range of issues such as measuring national GDP or assisting the flow of remittances. Localized efforts to measure the informal economy support community development activities including economic, housing and workforce development.

A concerted effort is needed to better align the varied methods used to measure the informal economy so that they may support decisions a local levels. Efforts are well under way to address national level methodologies, but there has not been a similar effort to assess initiatives to quantify the informal economy at the neighborhood or micro market level. Additionally, bringing efforts to quantify the informal economy at both levels together will also assist researchers and practitioners to see the informal economy's relation to the formal economy not as distinct economic activity, but as a unified economy that may need a new vocabulary to properly describe it.

APPENDIX A. OVERVIEW OF THE VARIOUS METHODS FOR MEASURING INFORMAL ECONOMIC ACTIVITY

Direct/Indirect, Indicator or Proxy Approaches?	Method	Size	Potential Application to Neighborhood Estimates	
			Pros	Cons
Indirect	**Labor Market Analysis:** Residual between recorded total employment and total number of jobs reported by employers	Depending on labor market approach, the informal economy may generate between 9 to 29 percent of employment in LA County, CA. (Flaming and Marcelli 2002)	1. Utilizes standardized data generated across the US, therefore approach is easily replicable 2. Can estimate informal labor force at the county level 3. Can be tracked to identify trends in causes, size and composition of informal labor force which is useful when considering and developing policy interventions	1. Residual between number of people claiming to be employed and reported employment by employers may be caused b other factors other than the informal economy including lag time in reporting and the increasingly fragmented and flexible nature of employment 2. A person may work in both the formal and informal economy 3. Data only disaggregated to the US County level making more micro-market analysis hazardous
Proxy	**Neighborhood Proxies Approach**: Weighted score system of neighborhood indicators to identify estimated income generated from informal activity	15-25% of neighborhood income ($4.4 billion in 101 low-income communities) (Social Compact 2005)	1. Simple model that is easily replicable 2. Designed specifically for micro-market analysis 3. Uses a wide variety of data sources 4. Can be conducted regularly to highlight trends	1. Model only highlights size and not determinants or characteristics of the informal economy 2. May capture formal economic activity as well as income from criminal activity 3. Lacks rigorous testing in all medium and higher urban economic micro-markets
Proxy/Indirect	**Currency Demand**: Controlling for other macro-economic causes (interest rates for instance), attributes the size of the informal economy to excess demand for currency based on the assumption that all informal economic transactions use cash	1986/90: 6.2% of US GDP (Schneider 2000)	1. Can track the size and development of the informal economy	1. Difficult to employ at a local level 2. Not all transactions are paid in cash 3. Availability of data means that the tax burden is the primary cause of the informal economy in most currency demand analyses which is unrealistic
Proxy	**Electricity Consumption:** Assumes electricity usage is the single best indicator for informal economic activity. According to this approach, the difference between the gross rate of registered (official) GDP and the corresponding rate of total electricity consumption can be attributed to the growth of the informal economy.	1986-1990: 9.9% of US GDP (Schneider 2000)	1. Simple method that can be employed locally using electricity consumption data supplied by utilities and regulators 2. Method is easily replicable	1. Not all informal activity requires electricity (gardening or agricultural day labor work) 2. The elasticity of demand for electricity may vary between locales over time 3. Technology has and will improve the efficiency of electrical usage
Direct	**Survey:** The most widely used method; well designed surveys are conducted at various geographic levels to derive rich information on the size, determinants and characteristics of the informal economy.	1981-1985: 5.6% of US GDP (Schneider 2000)	1. Widely used as a source of rich and detailed information on the informal economy with important implications for policy interventions 2. Often only source of data on the informal economy where there is a dearth of other micro and macroeconomic data 3. Can be deployed at an geography depending on objectives, scope and budget	1. Time consuming 2. Costly 3. Challenging, the very nature of the subject may mean that respondents are less willing to divulge information 4. Design of survey can influence results enormously 5. Difficult to track trends in informal economic activity
Indirect	**Multiple Causes/Indicators:** This model approach explicitly considers multiple causes leading to the existence and growth as well as the multiple effects of the informal economy over time. The model is based on the statistical theory of unobserved variables, which considers multiple causes and multiple indicators of the phenomenon to be measured.	2001/2: Informal economy estimated to account for 8.7% of US GDP	1. Methodology includes wide variety of both determinants and indicators of informal economic activity, reflecting the many facets of the phenomena 2. Based upon existing traditional and non-traditional data sources used by Social Compact in the US for example, the methodology may be applicable and replicable for more local-level analysis	1. Like all models, MCMI is only as good as the assumptions 2. Untested at a local level
Direct	**Tax Auditing**: Designed to measure the amount of undeclared taxable income, this method is based on measuring the discrepancy between income declared for tax purposes and that measured by selective checks like fiscal auditing programs for instance.	1986-1990: Informal economy estimated to account for 10% of US GDP (Schneider 2000)	1. Utilizes large existing data sets 2. Model could possible be disaggregated for micro-market analysis	1. Because the sample is based on suspicion of tax fraud, it is not random and therefore biased to certain activities and sections of the population 2. Estimates based on tax audits may capture only a small portion of the informal economy income. Simply because authorities succeeded in discovering it does not mean they have captured all informal economic activity

BIBLIOGRAPHY

Amjad, R. (1990) 'Urban planning and employment generation in the Asian Megalopolis', in ILO-ARTEP: Employment challenges for the 1990's, New Delhi.

Angelini, J. & Hirose, K. (2004) Extension of Social Security Coverage for the Informal Economy in Indonesia, Working Paper 11 Manila: ILO

Anjaria, Jonathan Shapiro. 2006. "Street Hawkers and Public Space in Mumbai." Economic and Political Weekly, Vol. 41, No. 21, May 27, 2006.

Baden, S. (2001). Researching Homework and Value Chains in the Global Garments Industry: An Annotated Resource List and Binder. Boston: WIEGO

Bhattacharyya, D.K. (2004). "On the use of the Hidden Economy Estimates." Public Choice, 118, pp. 169-181.

Bhowmik, Sharit K (2003): 'National Policy for Street Vendors', Economic and Political Weekly, April 19, 1543-46.

Cagan, Phillip (1958): "The Demand for Currency Relative to the Total Money Supply," Journal of Political Economy, 66:3, pp. 302-328.

Castells, Manuel and Alejandro Portes. (1989). 'World Underneath: The Origins, Dynamics, and Effects of the Informal Economy'. In Alejandro Portes, Manuel Castells and Lauren A Benton (eds), The Informal Economy: Studies in Advanced and Less Advanced Developed Countries. Baltimore: Johns Hopkins University Press.

Chen, M., Sebstad, J. and O'Connell. L. (1999). "Counting the Invisible Workforce: The Case of Homebased Workers." World Development, Vol. 27, No. 3.

Chen, M. and Carr, M. (2002). "Globalization and the Informal Economy: How Global Trade and Investment Impact on the Working Poor." Working Paper on the Informal Economy , No. 1. Geneva : ILO

Chen, M., Guerrero, M. and Vaanek, J. (2002). "Improved Statistics on the Informal Economy." Briefing Paper for the International Labor Office. Geneva, Switzerland.

Chen, M., Jhabvala, R. and Lund, F. (2002). "Supporting Workers in the Informal Economy: A Policy Framework." Working Paper on the Informal Economy , No. 2. Geneva : ILO.

Chen, M. (2003). "Rethinking the Informal Economy." Seminar, Vol. 531, November 2003.

Chen, M. (2004). “Rethinking the Informal Economy: Linkages with the Formal Economy and the Formal Regulatory Environment.” Paper presented at the EGDI and UNU-WIDER Conference, Unlocking Human Potential: Linking the Informal and Formal Sectors, 17-18 September 2004, Helsinki, Finland.

Chen, M. (2005). “The Business Environment and the Informal Economy: Creating Conditions for Poverty Reduction.” Background paper for the Committee of Donor Agencies for Small Enterprise Development Conference on “Reforming the Business Environment,” November 29 - December 1 2005, Cairo, Egypt.

Chen, M. and Vanek, J. (2005). “Informal Employment: Rethinking Workforce Development.” In Tony Avigan, L. Josh Bivens and Sarah Gammage, eds., Good Jobs, Bad Jobs, No Jobs: Labor Markets and Informal Work in Egypt , El Salvador , India , Russia , and South Africa . Washington, D.C.: Economic Policy Institute.

Community Links (2006) “Measuring the Informal Economy in the UK” London: Community Links

Cross, J. (2000). “Street Vendors, Modernity and Postmodernity: Conflict and Compromise in the Global Economy.” The International Journal of Sociology and Social Policy, 20, p.29.

Davis, Mike. (2006) ‘Planet of Slums’ Verso: New York

de Soto, Hernando. (1989). The Other Path: The Economic Answer to Terrorism. New York: Harper Collins.

Edgcomb, E. and Armington, M. (2003). “The Informal Economy Latino Enterprises at the Margins.” The Aspen Institute. Washington, DC.

Entry in The New Palgrave: a Dictionary of Economic Theory and Doctrine Vol. 2,

Evans, M., Syrett, S., Clift, S and Williams, C. (2005). Informal Economic Activities and Deprived Neighbourhoods, Office of the Deputy Prime Minister

Feige, Edgar L. (1996): Overseas holdings of U.S. currency and the underground economy, in: Pozo, Susan (ed.): Exploring the Underground Economy. Kalamazoo, Michigan, pp.5-62.

Flaming, D. & Marcelli, P. (2002) ‘Workers Without Rights’ Los Angeles: Economic Roundtable

Fleming, M., Roman, J., and Farrell, G. (2000). “The Shadow Economy.” Journal of International Affairs, 53, p.387.

Franchise Tax Board (2004). Frequently Asked Questions about the Tax Gap.

Frey, Bruno S. and Hannelore Weck-Hannemann (1984): The hidden economy as an "unobserved" variable, European Economic Review, 26/1, pp. 33-53.

Gerxhani, K. (2003). "The Informal Sector in Developed and Less Developed Countries: A Literature Survey." Amsterdam Institute for Advanced Labor Studies.

Giles, David, E.A. and Linsey M. Tedds (2002): Taxes and the Canadian Underground Economy, Canadian Tax Paper No. 106, Canadian Tax Foundation, Toronto/Ontario.

Glovackas, S. (2005). "Informal Economy in Central and Eastern Europe."

Gopal, J. (1997) Urban informal sector in Metro Manila: a problem or solution? Manila: ILO/SEAPAT

Gooptu, N. (2001) 'The Politics of the Urban Poor in Early Twentieth-Century India', p. 2 in Davis, M. (2006) Planet of Slums, Verso: New York

Greig-Smith, H. (2004). "Shadow Economy 'Has Benefits'." Regeneration & Renewal, p. 5.

Hart, K. 1973. Informal income opportunities and urban employment in Ghana. Journal of Modern African Studies 11, 61–89

Haydamack, Brent & Flaming, Daniel. (2003). Marginal Jobs: LA's Off-The-Books Labor Force. Economic Roundtable Paper, Los Angeles, CA

Howell, J. (2002) Good Practice Study in Shanghai on Employment Services for the Informal Economy, Geneva: ILO

Hunter, Nina and Caroline Skinner. (2003). "Foreign Street Traders Working in Inner City Durban: Survey Results and Policy Dilemmas." Research Report, No. 49. Durban: School of Development Studies.

Iakovlev, A. and Vorontsova, O. (1998). "Methodological Approaches to Estimating the Size of Unreported Cash Turnover." Problems in Economic Transition, 40, pp.77-92.

Ihrig, J. & Moe, K. (2004). "Lurking in the Shadows: The Informal Sector and Government Policy." Journal of Development Economics, 73, pp. 541-557.

International Labour Office (1972): Employment, Incomes and Equality: A Strategy for Increasing Productive Employment in Kenya, International Labour Office, Geneva.

International Labour Office (2002) Effect to be given to resolutions adopted by the International Labour Conference at its 90th Session (2002), (b) Resolution concerning decent work and

the informal economy; Governing Body, 285th Session, Seventh item on the agenda; Geneva, November 2002 (doc. GB.285/7/2)

International Labour Office (2002). “Women and Men in the Informal Economy: A Statistical Picture.” Geneva: Employment Sector, International Labour Office. New York: Oxford University Press, 2004.

Isachsen, A. & Strom, S. (1980). “The Hidden Economy, the Labor Market and Tax Evasion,” Scandanavian J. Econ, 82 pp. 304-11.

Jensen, L., G.T. Cornwell, & J.L. Findeis. 1995. Informal Work in Nonmetropolitan Pennsylvania. Rural Sociology 60(1): 91-107.

Joassart-Marcelli, P. & Flaming, D. (2003). “Workers without Rights the Informal Economy in Los Angeles.” Economic Roundtable Briefing Paper. Los Angeles, CA.

Kaliski, J. (1999) Everyday Urbanism, New York: Monacelli Press

Kaufmann, D. & Kaliberda, A. (1996). “Integrating the Unofficial Economy into the Dynamics of Post Socialist Economies: A Framework of Analyses and Evidence,” World Bank Policy Research Paper 1691.

Kukindo and Estrella-Gust (1994) A pilot survey on occupational safety and health in the informal sector, Dar es Salaam, Tanzania, Report 7/94 Geneva: ILO

Labajo, M. (1996) Urban poor women as caregivers and breadwinners: a report on community-based care for women in the informal economy sector Manila: ILO/SEAPAT

Lacko, M. (2000). “Hidden Economy – an Unknown Quantity? Comparative analysis of hidden economies in transition countries, 1989-95.” Economics of Transition, 8, (1), 117-149.

Leonard, M. (2000). “Coping Strategies in Developed and Developing Societies: The Workings of the Informal Economy.” Journal of International Development, 12, pp. 1069-1085.

Losby, J., Kingslow, M. & Else, J. (2003). “The Informal Economy Experiences of African Americans.” The Aspen Institute. Washington, DC.

Losby, J. et. al. (2002). “Informal Economy Literature Review.” The Aspen Institute. Washington, DC.

Lund, F. (2005). “A Framework for Analyzing Social Protection for Workers in the Informal Economy.” In Claudia Piras, ed., Women at Work. Washington, D.C.: IDB.

Lund, F. and Nicholson, J., (2003). “Chains of Production, Ladders of Protection: Social Protection for Workers in the Informal Economy.” Durban: School of Development Studies.

Lund, F. and Skinner, C. (2003). “The Investment Climate for the Informal Economy: A Case of Durban, South Africa.” Background Case Study for World Development Report 2005: A Better Investment Climate for Everyone.

Lund, F. and Skinner, C. (2004). “Integrating the informal economy in urban planning and governance: A case study of the process of policy development in Durban, South Africa “International Development Planning Review, Vol. 26, No. 4.

Lund, F. and Srinivas, S. (2000). “Learning From Experience: A Gendered Approach to Social Protection for Workers in the Informal Economy.” Geneva: ILO.

Lyssiotou, P., Pashardes, P. & Stengos, T. (2004). “Estimates of the Black Economy Based on Consumer Demand Approaches.” The Economic Journal, 114, pp. 622-640.

MacDonald, R. (1994) 'Fiddly Jobs, Undeclared Working and the Something for Nothing Society', Work, Employment and Society Vol. 8, No. 4, 507-530.

Mayhew, H. 1861–2. London Labour and the London Poor. 4 vols, London.

Mehrotra, Rahul (2004) ‘Everyday Urbanism, Michigan Debates on Urbanism, Volume 1: Margaret Crawford vs. Michael Speaks’ University of Michigan: Ann Arbor

Mitra, A. (2004) Urban Informal Sector and Networks: A Case Study of Delhi Slum Dwellers, Parallel Session 2.2 Helsinki: EGDI/UNU-WIDER

Michael Mutter, UK Department for International Development, quoted in Environment and Urbanization 15:1 (April, 2003) p.12.

Motala, S. (2002) Organizing in the Informal Economy: A Case Study of Street Trading in South Africa, SEED Working Paper No.36 Geneva: ILO

Nelson, M.K., & J. Smith. 1999. Working Hard and Making Do: Surviving in Small Town America. Berkeley: University of California Press.

Newman, I. (2004). “Why We Can Gain from the Informal Economy.” Regeneration & Renewal, p.14.

Rinehart, R, D. (2004) Designing programmes to improve working and employment conditions in the informal economy: A literature review

Park, T. "Reconciliation between personal income and taxable income", mimeograph (Washington, D.C., Bureau of Economic Analysis, 1979), pp. 1947-1977.

Rogerson, C. (2004) From National to Local Level Planning for the SMME Economy: The Case of Johannesburg, Parallel Session 2.2 Helsinki: EGDI/UNU-WIDER

Sassen, S. (1991) The Global City. New York: Princeton University Press

Sassen, S. (1988). “New York City’s Informal Economy.” Institute for Social Science Research, IV, paper 9. Los Angeles, CA.

Sassen, S. (1997). “Informalization in Advanced Market Economies.” International Labor Organization Issues in Development Discussion Paper 20.

Schacht, M. (2003). “The Underground Economy in California Agriculture.” California Rural Legal Assistance Foundation Policy Paper. Sacramento, CA.

Schneider, F. (1998). “Further Empirical Results of the Size of the Shadow Economy of 17 OECD Countries over Time,” Economic Discussion Paper.

Schneider, F. and Enste, D. (2000). “Shadow Economies: Size, Causes, and Consequences.” Journal of Economic Literature, XXXVIII, pp. 77-114.

Schneider, F. (2000) ‘Illegal activities and the generation of value added: size, causes and measurement of shadow economies’ in United Nations Office on Drugs and Crime Bulletin on Narcotics, Volume LII, Nos. 1 and 2, 2000

Schneider, F (2002) ‘Size and Measurement of the Informal Economy in 110 countries around the world’ a paper presented at a Workshop of Australian National Tax Centre, ANU, Canberra, Australia, July 17, 2002.

Singh, A., Capt, J. and Jackson, J. (2002). “Decent Work and the Informal Economy: Abstracts of Working Papers.” International Labor Office Employment Sector Paper. Geneva, Switzerland.

Skinner, C. (2005). “Constraints to Growth and Employment in Durban: Evidence from the Informal Economy.” Research Report, No. 65. Durban: School of Development Studies.

Slack, T. (2006) Work, Welfare and the Informal Economy: An examination of family livelihood strategies in rural Pennsylvania RPRC Working Paper No. 06-06

Smith, R. (2002). “The Underground Economy: Guidance for Policy Makers?” Canadian Tax Journal, 50, p. 1655.

Social Compact (2006). "Santa Ana Neighborhood DrillDown."

Social Compact (2005). “Oakland Neighborhood Market DRILLDOWN.”

Social Compact (2001). “Harlem Neighborhood Market DRILLDOWN.”

Snyder, K. (2004). “Routes to the Informal Economy in New York’s East Village: Crisis, Economics and Identity.” Sociological Perspectives, 46, p.215.

Standing, Guy. (1999). Global Labour Flexibility: Seeking Distributive Justice. New York: St. Martins Press.

Tanzi, Vito (1980): “The Underground Economy in the United States: Estimates and Implications,” Banca Nazionale del Lavoro , 135:4, pp. 427-453.

Thomas, J. (2001). “What is the Informal Economy Anyway?” SAIS Review, XXI, No. 1.

Tickamyer, A.R., & T.A. Wood.(1998). Identifying Participation in the Informal Economy Using Survey Research Methods. Rural Sociology 63(2): 323-339.

Tickamyer, A.R., & T. Wood. (2003). The Social and Economic Context of Informal Work. In W.W. Falk, M.D. Schulman, & A.R. Tickamyer (eds.), Communities of Work: Rural Restructuring in Local and Global Contexts. Athens, OH: Ohio University Press.

United States Bureau of Labor Statistics Consumer Expenditure Survey, 2003.
United Nations Economic and Social Council, Statistical Commission 35th Session, 2-5 March 2004.

United Nations Expert Group on Informal Sector Statistics, 1st meeting, 1997.
United Nations Population Division (2003). World Urbanization Prospects: The 2003 Revision.

Unni, J. and Jacob, P. (1999) Informal Sector Activities in Rural Areas: A Methodological Study, Ahmedabad: Gujarat Institute of Development Research

Valodia, I., Devey, R. and Skinner, C. (2005). “The State of the Informal Economy.” In Sakhela Buhlungu, John Daniel, Roger Southall, and Jessica Lutchman, Eds. State of the Nation: South Africa 2005-2006. Cape Town: Human Sciences Research Council Press.

Vosko, Leah, (2002). “Decent Work in the Informal Economy: A Discussion Paper on Item VI of the 90th Session of the International Labour Conference, 2002.”

Whyte, W.F. 1943. Street Corner Society: the social structure of an Italian slum. Chicago: University of Chicago Press.

WIEGO (2000). “Women in the Informal Economy.” Brochure.

WEIGO (2001). “The Informal Economy in North America.” Harvard Trade Union Program/WIEGO Conference Report, 21-22 May 2001.

WIEGO, International Labour Conference (2002). “Workers in the Informal Economy: Platform of Issues.”

Williams, Colin. C. & Windebank, Jan (2001) ‘The Growth of Urban Informal Economies’ in Paddison, Ronan ed. Handbook of Urban Studies, Sage Publications: London

Xaba, J., Horn, P. and Motala, S. (2002). “The Informal Sector in Sub-Saharan Africa.” Working Paper on the Informal Economy, No. 10. Geneva: ILO.

Zuin, V. (2004) Business strategies of informal micro-entrepreneurs in Lima, Peru Geneva: IILS Publications

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