Out of the shadows: Classifying economies by the extent and nature of employment in the informal economy

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Abstract. *Given the prevalence of informality, this article proposes a typology for classifying countries by the extent and nature of employment in the informal economy, rather than by the composition of their formal economies. The author analyses ILO data on employment in the informal economy in 36 developing countries, and shows that there is a significant correlation between cross-national variations in the degree and intensity of informalization and cross-national variations in social and economic indicators such as levels of GNP per capita, corruption, poverty, taxation and social contributions. The article concludes by discussing implications for theory and policy.*

Until now, classifications of economies have differentiated countries by the nature of their formal economic systems – using indicators such as levels of gross domestic product (GDP) or gross national income (GNI) per capita (World Bank, 2013) – regardless of whether they are control, market or mixed economies (Arnold, 1996; Rohlf, 1998), or liberal or coordinated varieties of capitalism (Hall and Soskice, 2001). While this would be appropriate if the majority of global employment was in the formal economy, this is not the case (Jütting and de Laiglesia, 2009; ILO, 2012 and 2013; Williams and Lansky, 2013). Consequently, the aim of this article is to develop a typology for the classification of economies by the extent and nature of employment in the informal economy. The importance of doing this is that it not only highlights the prevalence of such employment across the world but also draws attention away from the formal labour market – in which only a minority of jobs globally are located – to employment in the informal economy, in which the majority of jobs are found.

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The remainder of this article is organized into five sections. The first briefly reviews how employment in the informal economy is defined, provides a typology that classifies economies by the extent and nature of employment in the informal economy and reviews the competing explanations for the cross-national variations in the degree and intensity of informalization. The second section describes the data set and methodology. The third section reports on the findings concerning the cross-national variations in the degree and intensity of informalization, while the fourth contains a preliminary evaluation of the competing explanations for these cross-national variations. The fifth and final section concludes by summarizing the findings and discussing their implications for theory and policy.

Employment in the informal economy: Definition, typology and competing explanations

Definition

Employment in the informal economy is defined in this article using the widely accepted enterprise-based definition of the "informal sector" and the jobs-based definition of "informal employment" adopted in 1993 and 2003 by the 15th and 17th International Conference of Labour Statisticians (ICLS), respectively (Hussmanns, 2005; ILO, 2011 and 2012).[1] As shown in table 1, if the enterprise is taken as the unit of analysis, the informal sector includes both formal and informal jobs in informal enterprises (A+B); if jobs are taken as the unit of analysis, informal employment includes informal jobs in both informal and formal enterprises (A+C). In this article, both units of analysis are used, by examining "employment in the informal economy" (A+B+C), which covers all persons who in their main job are employed either in the informal sector (A+B) or in informal employment (A+C), counting only once those persons who are classified in both categories.

To define "employment in the informal economy", it is necessary to first define "informal enterprises" – i.e. the enterprise-based concept of the "informal sector" – and "informal jobs" – i.e. the jobs-based concept of "informal employment". The 15th International Conference of Labour Statisticians in 1993 defined the "informal sector" – i.e. informal enterprises – as private unincorporated enterprises that are unregistered, or small in terms of the number of employed persons. Unincorporated enterprises are production units not constituted as separate legal entities independently of their owners, and for which no complete accounts are available. An enterprise is unregistered when it is not registered under specific forms of national legislation, e.g. factories acts or commercial acts, tax or social security laws, professional groups' regulatory acts. The issuing of a trade licence or business permit under local regulations

[1] The full text of the 1993 ICLS resolution is available at: http://www.ilo.org/wcmsp5/groups/public/---dgreports/---stat/documents/normativeinstrument/wcms_087484.pdf.

Table 1. The anatomy of informality

Economic units	Informal jobs	Formal jobs
Informal enterprises	A	B
Formal enterprises	C	D

Source: ILO (2012).

does not qualify as registration. An enterprise is small when its size in terms of employment is below a specific threshold (e.g. five employees) determined according to national circumstances (Hussmanns, 2005; ILO, 2011 and 2012).

Recognizing that this enterprise-based definition did not capture all informal employment (e.g. those in formal enterprises, private households or subsistence farming), the 17th International Conference of Labour Statisticians in 2003 adopted a jobs-based definition of "informal employment" so as to include jobs both within and outside informal enterprises:

> Informal employment, which encompasses all of the jobs included in the concept of employment in the informal sector except those which are classified as formal jobs in informal sector enterprises, refers to those jobs that generally lack basic social or legal protections or employment benefits and may be found in the formal sector, informal sector or households (ILO, 2011, p. 12).

The full scope of "informal employment" is defined in paragraph 3 of the *Guidelines concerning a statistical definition of informal employment*,[2] adopted by the ICLS in 2003:

> (1) Informal employment comprises the total number of informal jobs as defined in subparagraphs (2) to (5) below, whether carried out in formal sector enterprises, informal sector enterprises, or households, during a given reference period.
>
> (2) ... informal employment includes the following types of jobs:
>
> (i) own-account workers employed in their own informal sector enterprises ... ;
>
> (ii) employers employed in their own informal sector enterprises ... ;
>
> (iii) contributing family workers, irrespective of whether they work in formal or informal sector enterprises ... ;
>
> (iv) members of informal producers' cooperatives ... ;
>
> (v) employees holding informal jobs (as defined in subparagraph (5) below) in formal sector enterprises, informal sector enterprises, or as paid domestic workers employed by households ... ;
>
> (vi) own-account workers engaged in the production of goods exclusively for own final use by their household ... , if considered employed according to paragraph 9(6) of the resolution concerning statistics of the economically active population, employment, unemployment and underemployment adopted by the 13th ICLS.
>
> ...

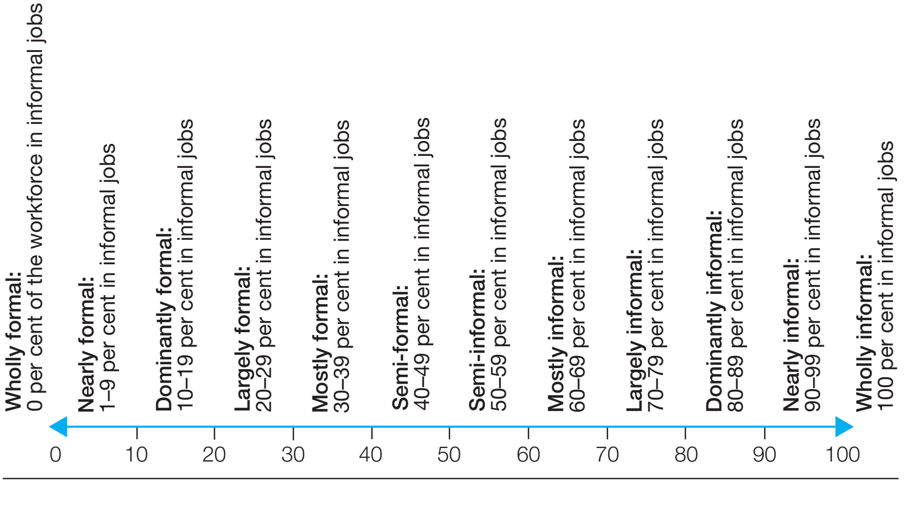
[2] The full text of the 2003 *Guidelines concerning a statistical definition of informal employment* is available at: http://www.ilo.org/wcmsp5/groups/public/---dgreports/---stat/documents/normativeinstrument/wcms_087622.pdf [accessed 5 July 2015].

(5) Employees are considered to have informal jobs if their employment relationship is, in law or in practice, not subject to national labour legislation, income taxation, social protection or entitlement to certain employment benefits (advance notice of dismissal, severance pay, paid annual or sick leave, etc.). The reasons may be the following: non-declaration of the jobs or the employees; casual jobs or jobs of a limited short duration; jobs with hours of work or wages below a specified threshold (e.g. for social security contributions); employment by unincorporated enterprises or by persons in households; jobs where the employee's place of work is outside the premises of the employer's enterprise (e.g. outworkers without employment contract); or jobs for which labour regulations are not applied, not enforced, or not complied with for any other reason.

Typology

Any classification of economies that compares the variable extent and heterogeneous nature of employment in the informal economy across the globe needs to convey, first, the degree of informalization in any economy and, second, how the nature of employment in the informal economy varies across economies. Figure 1 provides a simple way of classifying the degree of informalization – i.e. the proportion of the non-agricultural workforce in employment in the informal economy – in any economy. All economies can be positioned at a point on this spectrum. Care needs to be exercised when interpreting the different places economies occupy on the spectrum. Sometimes a temporal sequencing has been projected onto this spectrum by assuming that there is a natural and inevitable temporal trajectory towards the left of the continuum (i.e. formalization) and that a "development queue" is portrayed, with the more formal economies of the West to the left of the spectrum and the more informal economies of the third (majority) world to the right (Massey, 2005). However, the position economies occupy on this continuum does not necessarily

Figure 1. Typology of economies by level of employment in the informal economy as a percentage of all non-agricultural employment



represent the stage they are at in their trajectory towards formalization but rather, the difference between them; as such, a natural and inevitable temporal trajectory in a particular direction should not be assumed. Indeed, the lesson learned from the past few decades is that different economies are *moving in different directions* along this continuum (Schneider, 2013; Williams, 2007). Denoting formalization as a universal linear trajectory of economic development not only denies the lived practices of economies but also excludes the distinct possibility of alternative present and future trajectories.

To capture how the nature of employment in the informal economy varies across economies, meanwhile, any typology needs to outline the different forms of employment in a country's informal economy. Various options are available. For example, one might chart the share of total employment in the informal economy that is conducted on a "waged", own-account or household basis (see Williams and Lansky, 2013). In the present article, however, and using table 1 earlier, a distinction is drawn between informal jobs in informal enterprises (A), informal jobs in formal enterprises (C) and formal jobs in informal enterprises (B). How the nature of employment in the informal economy varies cross-nationally can then be classified by the "intensity of informalization", namely the share of all employment in the informal economy that is informal employment in informal enterprises (A). This is here considered a measure of a more intense form of informalization, since both the job and the enterprise is informal, which is not the case with formal jobs in informal enterprises (B) and informal jobs in formal enterprises (C). Once economies have been classified according to the degree and intensity of informalization, the resulting variations between countries need to be explained.

Competing explanations

According to the *modernization theory*, which dominated for most of the twentieth century, employment in the informal economy was widely depicted as a relic from a pre-modern production era, and was fading as the modern formal economy took hold (Geertz, 1963; Gilbert, 1998; Lewis, 1955; Packard, 2007). As Bromley (2007, p. xv) puts it, from this perspective, employment in the informal economy is "unimportant and destined to disappear". Such employment is thus portrayed as a product of economic underdevelopment, which will disappear with economic advancement and modernization. Cross-national variations in the degree and intensity of informalization, therefore, are seen to signify the position of a country on a one-dimensional linear trajectory towards formalization. Classifying countries using indicators such as GNP per capita, therefore, enables the relative level of economic advancement and modernization to be measured, and countries placed according to their position in the development queue, with nations at the fore being "advanced", "modern" and "progressive" and nations at the back of the queue, with low levels of formalization, being deemed "backward", "traditional" and "under-developed" (Geertz, 1963; Gilbert, 1998; Lewis, 1955; Packard, 2007).

In recent decades, however, the recognition that the majority of jobs are in the informal economy in many countries and regions (ILO, 2011, 2012 and 2013; Jütting and de Laiglesia, 2009; Rodgers and Williams, 2009; Schneider, Buehn and Montenegro, 2010), and that employment in the informal economy is widespread and growing in some countries and global regions but smaller and declining in others (Buehn and Schneider, 2012; Feld and Schneider, 2010; Rani et al., 2013; Renoy et al., 2004; Schneider, 2011), has led to the emergence of alternative, competing explanations. Each is here reviewed in turn (for a fuller discussion, see Williams and Lansky, 2013).

From a *neoliberal* perspective, the persistence – indeed, growth – of employment in the informal economy is deemed to be a populist reaction to high taxes, a corrupt state system and too much interference in the free market, resulting in workers making a rational economic decision to voluntarily exit the formal economy in order to avoid the costs, time and effort of formal registration (e.g., Flodman Becker, 2004; De Soto, 1989 and 2000; London and Hart, 2004; Nwabuzor, 2005; Perry and Maloney, 2007; Sauvy, 1984; Small Business Council, 2004). As Nwabuzor (2005, p. 126) asserts, "informality is a response to burdensome controls, and an attempt to circumvent them". The consequent solution is to reduce tax and corruption, and promote deregulation and minimal state intervention. From this perspective, therefore, we would expect employment in the informal economy to be more pervasive in countries that have higher taxes, more public-sector corruption and greater state interference.

According to *political economy* theory, however, this persistence and expansion of employment in the informal economy is a direct by-product of the advent of a deregulated open world economy (Castells and Portes, 1989; Gallin, 2001; Hudson, 2005; Portes, 1994; Sassen, 1996; Slavnić, 2010; Taiwo, 2013). The increasing functional integration of a single global economic system results in subcontracting and outsourcing becoming a primary means of incorporating informal employment into contemporary capitalism, causing further downward pressure on wages, the erosion of incomes, social services and benefits, and the growth of yet more employment in the informal economy. Viewed through this conceptual lens, employment in the informal economy is a largely unregulated, low-paid and insecure kind of survival-driven employment, conducted under "sweatshop-like" conditions by marginalized populations excluded from formal jobs and formal welfare support, who turn to such work as a last resort (Castells and Portes, 1989; Davis, 2006; Gallin, 2001; Hudson, 2005; ILO, 2002a; Sassen, 1996). From this perspective, therefore, employment in the informal economy will be higher in economies where there is inadequate state intervention to protect workers from poverty.

Until now, most commentators explaining cross-national variations in the level of employment in the informal economy have done so by supporting and validating the tenets of just one of these perspectives. For example, Schneider (2008) seeks to display that various tenets of the neoliberal perspective are valid, such as the need for tax cuts and reducing corruption in order to reduce the prevalence of employment in the informal economy. Yamada (1996), however, asserts that such employment is a matter of choice, as argued largely by neoliberals, rather than necessity, as argued by political economists. Recently, a more nuanced understanding has begun to emerge, according to which each of these perspectives is more relevant to some forms of informal employment, and contexts, than others, and only by combining them can a richer, finer-grained understanding be achieved. For example, it has been argued that, although in all contexts informality is due to a mix of exit and exclusion rationales, the political economy perspective is more applicable when explaining waged work in the informal economy, and the neoliberal perspective is more applicable when explaining self-employment in the informal economy (Perry and Maloney, 2007; Williams, 2010). It has also been argued that the political economy perspective is more relevant to relatively deprived populations, and the neoliberal perspective more relevant when explaining the informality of relatively affluent populations within countries (Evans, Syrett and Williams, 2006; Gurtoo and Williams, 2009; Pfau-Effinger, 2009; Williams, Nadin and Rodgers, 2012). Further, it has been argued that exit is more common in developed economies and exclusion in developing economies (Oviedo, Thomas and Karakurum-Özdemir, 2009) and that women are more likely to be driven by exclusion rationales and men by voluntary exit rationales (Franck, 2012; Grant, 2013; Williams, 2009; Williams and Round, 2009a and 2009b; Williams and Youssef, 2013).

To date, the only study that has evaluated critically the validity of these competing perspectives when explaining the cross-national variations in the level of employment in the informal economy focused upon the European Union Member States (Eurofound, 2013; European Commission, 2013; Williams, 2013). The study found evidence to support the tenets of both the modernization and political economy theories but no evidence to support most of the tenets of the neoliberal theory. No studies have yet evaluated the validity of these competing explanations in the context of employment in the informal economy in the developing world. This article therefore seeks to fill that gap. Is it, as the conventional modernization theory asserts, simply that wealthier developing economies have lower levels of employment in the informal economy than poorer developing economies? Is it, as neoliberals assert, that employment in the informal economy is greater in developing economies that have more public-sector corruption, higher taxes and greater state interference in work and welfare? Or, alternatively, is employment in the informal economy more prevalent in developing countries that have greater poverty and less protection of workers, forcing marginalized populations into such work because there is no alternative?

Methodology and data set

To populate the classification of economies by the extent and nature of employment in the informal economy, and evaluate the contrasting explanations for cross-national variations, the compiled results of the ILO national surveys on employment in the informal economy are analysed (ILO, 2012). Of the 47 developing countries surveyed, data on the extent and nature of employment in the informal economy are available for 36 countries. These are the only cross-nationally comparable data currently available on employment in the informal economy in developing countries to be based on a common broad definition and similar survey methodology, namely, data collection through ILO Department of Statistics questionnaires on employment in the informal economy, excluding employment in agriculture, hunting, forestry and fishing. What is counted in the compilation of results is the self-reported main job of people with more than one job, not least so as to avoid any small-scale odd-jobs in the informal economy being counted. It is important to be aware at the outset, however, that the reported national figures on the prevalence of employment in the informal economy arising out of these ILO data sometimes differ from, and are lower than, individual country-level data. This is the case with India, for example. Although some caution is therefore urged, the advantage of this data set is that it provides comparative data collected in the same manner, using the same definitions.

Until now, despite various reports on the findings of this data set on employment in the informal economy (ILO, 2011 and 2012), the data set has not been used to analyse the cross-national variations in the extent and nature of employment in the informal economy or to evaluate critically the competing explanations for these cross-national variations. This article fills that gap. To select the indicators against which the competing explanations can be evaluated, the approach adopted is that proxy indicators for the various tenets of the modernization, political economy and neoliberal theories are taken from the World Bank development indicators database for the year in which the survey was conducted in each country (World Bank, 2013). The only indicator taken from a non-official source is that of perceptions of public-sector corruption, extracted from Transparency International's Corruption Perceptions Index for the relevant year in each country (Transparency International, 2013).

To evaluate the modernization theory, the indicator employed is that used in previous studies (ILO, 2012; Yamada, 1996), namely, GNP per capita. To evaluate the neoliberal theory that higher levels of informal entrepreneurship result from high taxes, corruption and state interference in the free market, indicators previously used when evaluating the assumptions of neoliberal thought (Eurofound, 2013; European Commission, 2013; Williams, 2013) are employed, namely, the World Bank (2013) country-level data on:

- Taxes on goods and services as a percentage of revenue, which includes general sales and turnover or value added taxes, selective excises on goods, selective taxes on services, taxes on the use of goods or property, taxes on extraction and production of minerals, and the profits of fiscal monopolies;
- Taxes on revenue (excluding grants) as a percentage of GDP. By "revenue" is meant cash receipts from taxes, social contributions, and other revenues such as fines, fees, rent, and income from property or sales.

Grants are also considered as revenue by the World Bank data, but are excluded here.

- Tax revenue as a percentage of GDP. Tax revenue refers to compulsory transfers to the central government for public purposes. Certain compulsory transfers such as fines, penalties, and most social security contributions, are excluded. Refunds and corrections of erroneously collected tax revenue are treated as negative revenue.

In addition, the public-sector corruption tenet of the neoliberal theory is evaluated using:

- Transparency International's Corruption Perceptions Index (CPI) (Transparency International, 2013). This is a composite index of perceptions of public-sector corruption that draws on 14 expert opinion surveys, and scores nations on a scale of 0–10, with zero indicating high levels, and 10 low levels, of perceived public-sector corruption.

To analyse both the neoliberal theory that state interference leads to greater levels of employment in the informal economy, and the contrasting political economy theory that such employment is a result of inadequate levels of state intervention, the indicator analysed is that previously used when evaluating these assumptions of neoliberal and political economy thought (European Commission, 2013; Eurofound, 2013; Williams, 2013), namely:

- Social contributions as a percentage of revenue. Social contributions include social security contributions by employees, employers, and self-employed individuals, and other contributions whose source cannot be determined. They also include actual or imputed contributions to social insurance schemes operated by governments.

Meanwhile, to analyse the tenet of the political economy theory that employment in the informal economy is correlated with the existence of poverty, the indicator analysed is the percentage of the population living below the national poverty line.

To analyse the correlation between cross-national variations in the extent and nature of employment in the informal economy and cross-national variations in the economic and social indicators that each theory suggests are associated, given the small sample size of just 36 countries and lack of necessary controls to include in a multivariate regression analysis, it is only possible here to conduct bivariate regression analyses. To do this, Spearman's rank correlation coefficient (r_s) is used, owing to the non-parametric nature of the data. As will be shown, despite the limitation of only using bivariate regression analysis, some meaningful findings are produced regarding the validity of the different theoretical perspectives.

Below, therefore, the variable extent and nature of employment in the informal economy across the 36 countries will be described, followed by a preliminary analysis of the economic and social indicators deemed by each theory to be associated with higher levels of employment in the informal economy, in order to evaluate the competing explanations.

Findings: cross-national variations in the degree and intensity of informalization

Evaluating the findings for the 36 countries with regard to the extent of employment in the informal economy, table 2 shows that the majority of the non-agricultural workforce (simple unweighted average of 57.6 per cent) have their main employment in the informal economy. Taking the weighted average figure, however, in order to take into account the variable workforce size in each country, the finding is that across all 36 countries, 51.7 per cent of non-agricultural workers have their main employment in the informal economy. Employment in the informal economy, therefore, is not some minor phenomenon of little importance, but accounts for the employment of the majority of the workforce in these developing countries.

However, these overall figures mask some marked variations across global regions. To analyse this, the 36 countries for which data are available are divided into six regions, using the World Bank (2013) classification: East Asia and Pacific; Europe and Central Asia; Latin America and Caribbean; Middle East and North Africa; South Asia; and Sub-Saharan Africa. The finding is that the weighted proportion of the non-agricultural workforce whose main employment is in the informal economy ranges from just under one-quarter (24.8 per cent) of the working population in Europe and Central Asia, through to 75.6 per cent in South Asia. The share of the working population whose main employment is in the informal economy, therefore, is not evenly distributed globally.

As table 3 shows, there are also marked cross-national variations in employment in the informal economy, ranging from 84.7 per cent of the non-agricultural workforce in Mali to 6.5 per cent in Serbia. Indeed, in 24 (67 per cent) of the 36 countries, half or more of the non-agricultural workforce have their main employment in the informal economy. There is, however, significant

Table 2. Employment in the informal economy as a percentage of non-agricultural employment (unweighted and weighted) by global region

Global region (World Bank classification)	Total employment in the informal economy as a percentage of non-agricultural employment, unweighted	Total employment in the informal economy as a percentage of non-agricultural employment, weighted	No. of countries
East Asia and Pacific	64.8	47.4	4
Europe and Central Asia	22.8	24.8	4
Latin America and Caribbean	58.2	51.1	16
Middle East and North Africa	59.0	58.5	1
South Asia	75.9	75.6	3
Sub-Saharan Africa	64.8	53.1	8
All regions (average)	57.6	51.7	36

Source: Author's calculations, based on ILO (2012).

Table 3. Extent and nature of employment in the informal economy as a percentage of non-agricultural employment

Country	Year	Global region (World Bank classification)	Employment in the informal economy as percentage of non-agricultural employment (A+B+C) *(= Degree of informalization)*	Percentage of employment in the informal economy that is informal employment in informal enterprises *(= Intensity of informalization)*	Type of economy
Mali	2004	Sub-Saharan Africa	84.7	85.2	Dominantly informal
India	2009/10	South Asia	84.3	79.2	Dominantly informal
Philippines	2008	East Asia and Pacific	84.0	69.8	Dominantly informal
Pakistan	2009/10	South Asia	81.3	86.2	Dominantly informal
Zambia	2008	Sub-Saharan Africa	76.3	75.8	Largely informal
Bolivia	2006	Latin America and Caribbean	75.6	68.3	Largely informal
Honduras	2009	Latin America and Caribbean	75.3	75.6	Largely informal
Madagascar	2005	Sub-Saharan Africa	73.7	70.1	Largely informal
Uganda	2010	Sub-Saharan Africa	73.5	75.8	Largely informal
Indonesia	2009	East Asia and Pacific	72.4	83.1	Largely informal
Lesotho	2008	Sub-Saharan Africa	70.7	18.8	Largely informal
Paraguay	2009	Latin America and Caribbean	70.7	53.6	Largely informal
Peru	2009	Latin America and Caribbean	70.7	68.2	Largely informal
Nicaragua	2009	Latin America and Caribbean	69.4	73.1	Mostly informal
Viet Nam	2009	East Asia and Pacific	68.5	63.1	Mostly informal
El Salvador	2009	Latin America and Caribbean	68.2	75.7	Mostly informal
Tanzania, United Rep.	2005/6	Sub-Saharan Africa	66.7	68.5	Mostly informal
Sri Lanka	2009	South Asia	62.1	81.1	Mostly informal
Colombia	2010	Latin America and Caribbean	61.5	82.0	Mostly informal
Ecuador	2009	Latin America and Caribbean	61.3	60.2	Mostly informal
Liberia	2010	Sub-Saharan Africa	60.3	81.6	Mostly informal
Occupied Palestinian Territory	2010	Middle East and North Africa	59.0	36.9	Semi informal

(continued overleaf)

Table 3. Extent and nature of employment in the informal economy as a percentage of non-agricultural employment *(concl.)*

Country	Year	Global region (World Bank classification)	Employment in the informal economy as percentage of non-agricultural employment (A+B+C) *(= Degree of informalization)*	Percentage of employment in the informal economy that is informal employment in informal enterprises *(= Intensity of informalization)*	Type of economy
Mexico	2009	Latin America and Caribbean	54.3	61.7	Semi informal
Argentina	2009	Latin America and Caribbean	50.0	63.6	Semi informal
Dominican Rep.	2009	Latin America and Caribbean	48.8	59.6	Semi formal
Venezuela, Bolivarian Rep.	2009	Latin America and Caribbean	48.2	74.1	Semi formal
Costa Rica	2009	Latin America and Caribbean	48.2	67.6	Semi formal
Panama	2009	Latin America and Caribbean	44.0	62.5	Semi formal
Uruguay	2009	Latin America and Caribbean	43.7	68.6	Semi formal
Brazil	2009	Latin America and Caribbean	42.3	57.2	Semi formal
China	2010	East Asia and Pacific	34.4	58.4	Largely formal
South Africa	2010	Sub-Saharan Africa	32.7	54.4	Largely formal
Armenia	2009	Europe and Central Asia	19.8	51.5	Dominantly formal
Moldova, Rep.	2009	Europe and Central Asia	15.9	45.9	Dominantly formal
Macedonia, FYR	2010	Europe and Central Asia	12.8	57.8	Dominantly formal
Serbia	2010	Europe and Central Asia	6.5	46.2	Nearly formal

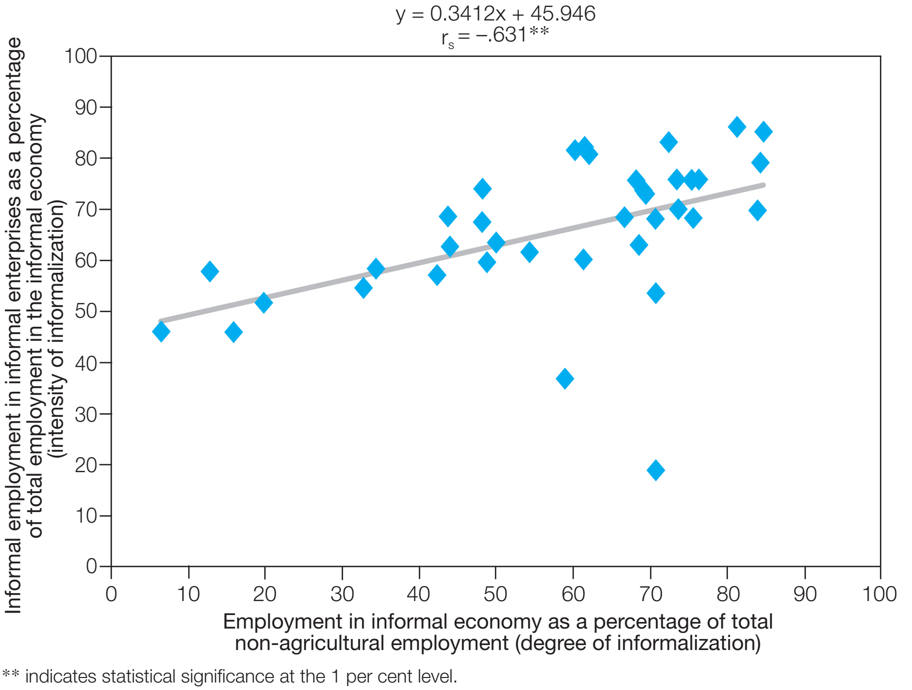
Source: Author's calculations, based on ILO (2012).

variation between countries. Using the typology illustrated in figure 1, it can be seen from table 3 that, although none of the developing economies are "wholly formal", "wholly informal" or "nearly informal", 11 per cent of countries are "dominantly informal" economies, 25 per cent are "largely informal" economies, 22 per cent are "mostly informal" economies, 8 per cent are "semi-informal" economies, 17 per cent are "semi-formal" economies, none are "mostly formal" economies, 6 per cent are "largely formal" economies, 8 per cent are "dominantly formal" economies and 3 per cent are "nearly formal" economies.

The 36 developing countries, consequently, are heavily clustered between the middle and the informal end of the continuum.

There is also a strong correlation between the degree of informalization of employment – i.e. the proportion of the non-agricultural workforce in employment in the informal economy – and the intensity of informalization – i.e. the share of all employment in the informal economy that is informal employment in informal enterprises. Columns 4 and 5 of table 3 report the degree and intensity of informalization, respectively. Examining the intensity of the informalization, the finding is that across all 36 developing countries, three-quarters (74 per cent) of all employment in the informal economy is informal employment in informal enterprises. Again, however, there are marked cross-national variations, ranging from 85.2 per cent in Mali to 18.8 per cent in Lesotho. Figure 2 shows that there is a statistically significant correlation between the degree and intensity of the informalization of employment: the greater the degree of informalization in a country, the higher the intensity of the informalization – i.e. the more likely informal employment is to be located in informal enterprises. Indeed, using Spearman's rank correlation coefficient (r_s) owing to the non-parametric nature of the data, the finding is that this correlation is statistically significant, within a 99 per cent confidence interval (r_s = –.631**).

Figure 2. Correlation between degree and intensity of informalization



** indicates statistical significance at the 1 per cent level.

Source: Author's own calculations.

Evaluating the competing explanations for cross-national variations in the degree and intensity of informalization

To undertake a preliminary analysis of the validity of the three theoretical perspectives that variously explain employment in the informal economy, we now evaluate the correlation between the cross-national variations in the degree and intensity of informalization and the cross-national variations in the various social and economic indicators that each theory deems to be important determinants.

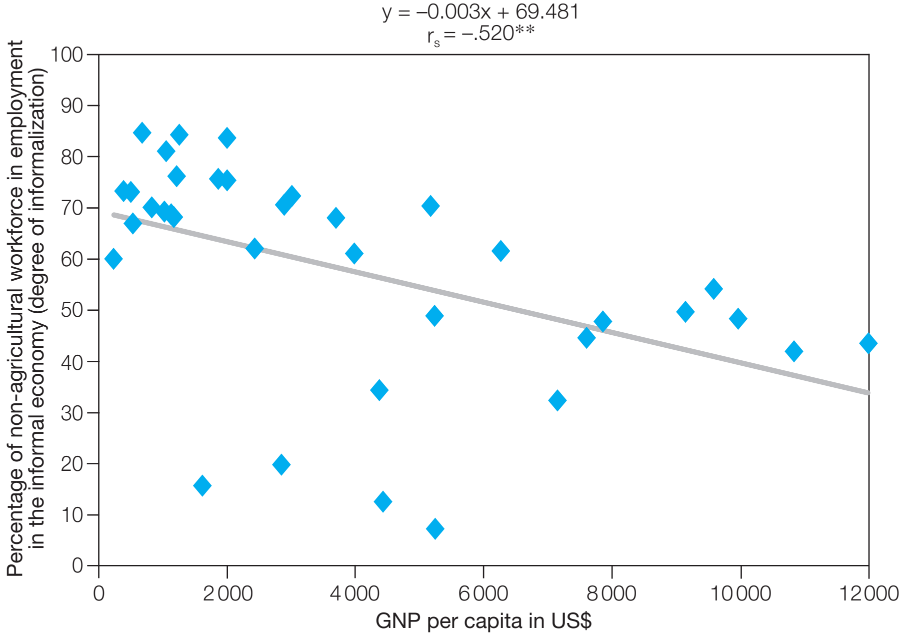
With regard to the modernization theory that the share of employment in the informal economy is greater in less developed economies, the correlation between the cross-national variations in the degree of informalization and the cross-national variations in GNP per capita is analysed across these 36 developing economies. Using Spearman's rank correlation coefficient, the finding (figure 3) is that there is a strong, statistically significant correlation, within a 99 per cent confidence interval, between the degree of employment in the informal economy in a country and the country's GNP per capita ($r_s = -.520^{**}$). The direction of this relationship is that employment in the informal economy is higher in developing economies with lower levels of GNP per capita.

There is also a statistically significant correlation, within a 95 per cent confidence interval, between the intensity of informalization and GNP per capita ($r_s = -.351^{*}$). The intensity of informalization – i.e. the share of all employment in the informal economy that is informal employment in informal enterprises – is greater in developing economies with lower levels of GNP per capita. However, as in previous studies that reach the same conclusion (ILO, 2012; Yamada, 1996), it is not possible here to establish the direction of the correlation in terms of any relationship of cause and effect. This, in consequence, is a limitation of both this and previous studies.

Turning to the neoliberal theory that informalization is a result of public-sector corruption, higher taxes, and state interference in the operation of the free market, we first analyse the argument that informalization is greater when public-sector corruption is higher. The finding is that there is a strong, statistically significant correlation between countries with higher perceived levels of public-sector corruption and a greater degree of informalization ($r_s = -.502^{**}$). While the correlation between public-sector corruption and the intensity of informalization is not statistically significant ($r_s = -.253$), the direction of the relationship is that countries with higher perceived levels of public-sector corruption have a greater intensity of informalization.

Second, we analyse the argument that informalization is greater when taxes are higher. For this, cross-national variations in the degree and intensity of informalization are compared with cross-national variations in tax rates. The finding is that there is a statistically significant correlation ($r_s = -.430^{*}$) between the cross-national variations in the degree of informalization and the level of taxes on goods and services as a percentage of revenue. However,

Figure 3. Correlation between degree of informalization and GNP per capita



** indicates statistical significance at the 1 per cent level.

Source: Author's own calculations.

the direction of the relationship is the inverse of what neoliberals suggest: the degree of informalization *decreases* as taxes on goods and services increase. Meanwhile, although the relationship between the intensity of informalization and the level of taxes on goods and services is not significant ($r_s = -.216$), the direction is that the intensity of informalization again decreases as taxes on goods and services increase.

Given that these findings begin to contest a core aspect of neoliberal theory, two further measures of tax levels are here evaluated. Analysing the cross-national variations in the level of revenue (excluding grants) as a share of GDP and the cross-national variations in the degree and intensity of informalization, a statistically significant correlation is found with both the degree of informalization ($r_s = -.510^{**}$) and intensity of informalization ($r_s = -.656^{**}$). Again, however, it is in the opposite direction to that suggested by neoliberal theory. It is similarly the case when the correlation between cross-national variations in the level of tax revenue as a proportion of GDP and cross-national variations in the degree and intensity of informalization are analysed. There is again a strong, statistically significant correlation with both the degree ($r_s = -.451^{*}$) and intensity ($r_s = -.679^{**}$) of informalization but again, the direction of the relationship is the inverse of what neoliberal theory asserts. Across all three measures of tax rates, therefore, the degree and intensity of informalization is lower in countries with higher taxes. One reason for this could be that higher taxes provide greater state revenue to enable social transfers, meaning citizens can receive some level of social protection.

To evaluate both the third neoliberal argument – that greater state interference in the operation of the market increases the degree and intensity of informalization – and the opposing political economy theory that greater state interference decreases the degree and intensity of informalization, the correlation between cross-national variations in the degree and intensity of informalization and cross-national variations in the level of social contributions as a percentage of revenue is analysed. The finding is that there is a strong, significant correlation between the level of social contributions and both the degree (r_s = –.609**) and intensity (r_s = –.582*) of informalization. The direction of the relationship is that both the degree and intensity of informalization decrease as social contributions as a share of revenue rise, suggesting support for the political economy explanation. No evidence is therefore found to support the neoliberal argument that state intervention leads to informalization. Instead, the political economy argument is validated, i.e. that informalization is associated with insufficient state intervention in the form of social protection.

Finally, turning to the political economy argument that cross-national variations in the degree and intensity of informalization are associated with poverty levels, again, a strong, statistically significant correlation is found between cross-national variations in the proportion of the population living below the national poverty line and the degree (r_s = –.355*) but not the intensity (r_s = .194) of informalization. The direction of this relationship is that the greater the share of the population living below the national poverty line, the greater the degree of informalization, suggesting that informalization might well be a last resort turned to by marginalized groups with no other means of livelihood or support, as argued by the political economy theory.

Conclusions

This article has provided a typology for classifying economies by the extent and nature of employment in the informal economy. Analysing the results of the ILO national surveys on employment in the informal economy, for 36 developing countries, the finding is that three in five (59.8 per cent) of the non-agricultural workforce have their main employment in the informal economy, and that just under three in four (74 per cent) of these work in informal enterprises. Nevertheless, marked cross-national variations exist. Not only does the degree of employment in the informal economy range from 84.7 per cent of the non-agricultural workforce in Mali to 6.5 per cent in Serbia, but there are similar variations in the intensity of informalization; the share of those employed in the informal economy, in informal enterprises, ranges from 85.2 per cent in Mali to 18.8 per cent in Lesotho. In 24 (67 per cent) of the 36 countries surveyed, nevertheless, half or more of the non-agricultural workforce is employed in the informal economy, and in 32 countries (89 per cent), over half this employment is in informal enterprises. Employment in the informal economy in these countries, therefore, is not some small segment of the labour market, of marginal importance. Indeed, in two-thirds of the countries surveyed, it is the formal economy that employs the minority of the workforce and is marginal in terms of employment.

Turning to an exploratory analysis of the reasons for these cross-national variations in the degree and intensity of informalization, three competing explanations have been critically evaluated. They argue that the degree and intensity of informalization are associated with: economic underdevelopment (modernization theory); higher taxes, public-sector corruption and state interference (neoliberal theory); and/or inadequate state intervention to protect workers from poverty (political economy theory). Evidence was found to support the modernization and political economy theories that associate greater informalization with economic underdevelopment and inadequate state protection of workers from poverty, respectively. Evidence was also found to support the neoliberal theory that the degree of informalization is higher in countries with higher levels of perceived public-sector corruption. However, no evidence was found to support the validity of the neoliberal theory that greater informalization is correlated with higher taxes and greater state interference. Instead, quite the opposite was found: higher taxes and greater state intervention reduce the degree and intensity of informalization, presumably because of the ability of governments with efficient tax enforcement regimes to make social transfers, thereby reducing the need for the population to turn to employment in the informal economy as a means of survival.

The theoretical implication of this study, therefore, is that a combination of previous explanations is required when explaining cross-national variations in the degree and intensity of informalization across developing economies. Akin to the previous finding when studying the degree of informalization in the advanced economies of the European Union (Williams, 2013) – albeit using a data set that is not comparable with the data in the present article – the finding is that higher degrees of informalization are correlated with lower GNP per capita, higher levels of public-sector corruption and lower levels of state intervention in the form of lower taxes and social transfers to protect workers from poverty. The very tentative conclusion, therefore, is that the same arguments are valid for both developed and developing countries when explaining a higher degree and intensity of informalization. It could be suggested, therefore, that a synthesis of both the modernization and political economy theories is required, in the form of a new "neo-modernization" theory, according to which a lower degree and intensity of informalization are correlated with economic development and state intervention in the form of higher taxes and social transfers to protect workers from poverty. This now requires further evaluation in relation to a wider range of developed and developing economies, using time series data for individual countries and, if possible, multivariate regression analysis on a larger sample size to determine how important each social and economic indicator is to the final outcome, whilst controlling for the other characteristics. The major barrier to doing this, nevertheless, is the lack of availability of cross-national comparative data on employment in the informal economy.

These findings also have policy implications for governments. Currently, the policy debate surrounding employment in the informal economy is over whether targeted repressive measures and/or targeted incentives are the most appropriate for facilitating formalization (Dibben and Williams, 2012; Eurofound, 2013; Feld and Larsen, 2012; OECD, 2012; Williams and Lansky, 2013; Williams and Nadin, 2012; Williams, Round and Rodgers, 2013). This article, however, shows that wider economic and social policy measures also have a considerable role to play. Importantly, however, the present study shows that the neoliberal remedy of reducing taxes and deregulating economies through minimizing state intervention in work and welfare is not the way forward. Similarly, no correlation is found between lower taxes, or less state intervention, and smaller informal economies. Instead, quite the opposite was found to be the case: the degree and intensity of informalization are lower in "modernized" economies that have lower levels of public-sector corruption, higher taxes, greater social protection expenditure and lower levels of poverty. Tackling employment in the informal economy, therefore, does not only require the development of targeted policy measures such as effective tax enforcement regimes, but also appropriate wider economic and social policies aimed at tackling underdevelopment, public-sector corruption and poverty through increased tax rates and social protection expenditure. In other words, targeted policy measures designed to facilitate formalization might be necessary, but appear insufficient for tackling employment in the informal economy.

In sum, grounded in the recognition that the majority of the non-agricultural workforce have their main employment in the informal economy, this article has adopted an alternative analytical framework for classifying economies by the extent and nature of employment in the informal economy, thus transcending the conventional approach of classifying them by the composition of their formal economies. This approach to classifying economies, of course, does not have to be viewed as an alternative to the conventional approach. Indeed, future research might well seek to combine these two approaches. If this article thus encourages further research on classifying economies by the extent and nature of employment in the informal economy, it will have achieved its intention. If it also leads scholars to synthesize the conventional approach examining the character of formal economies with this new approach, and encourages greater investigation of both the determinants of informalization as well as the broader economic and social policy remedies, then it will have achieved its wider objective.

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