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How Many Shades of Grey are there? Continuum Conceptualization of Formal/Informal Divide and Its Implications

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As long as firms are concerned, formality and informality as two realms of economy do not refer to a dualistic/binary structure of clear separation but a continuum that consists of a large number of strategic choices. There is a context-dependent grey zone of many shades in between pure formality and pure informality that enable firms to externalize some costs of their production processes so as to increase their profits at the expense of other actors, gradually converting the economy into a zero-sum game. Therefore this study reveals that what is often mentioned as the cost of formality is often the total price of inputs that are essential for production processes, and various forms of informality refers to free-riding on some of these costs that undermines the status of firms as truly capitalist entities.

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Introduction

One of the most common observations about developing countries is that their economies contain a large informal sector, and this has many implications in terms of employment, competitiveness and public policy (Moser 1978, Portes et al 1989, Mead & Morrison 1996, De Paula & Scheinkman 2006, Albrecht 2009, Koçer & Hayter 2011). But what is informal sector? How can we distinguish it from the formal one?

Informality as a term has entered the vocabulary of political economy and development studies during the early 1970s as a result of an official International Labor Organization report (ILO 1972, Hart 1973) and since then a huge literature has emerged on the subject examining the nature and implications of informal sector (Gerxhani 2004). The very term 'informal sector' itself has been derived on the basis of an ontological assumption that there is not only a distinct 'formal' sector of economic activities but this formalness is implicitly associated with 'correctness' in the sense of being historically and inevitably linked to the idea of advancement. The expected relationship has been, needless to say, one of evolution: the gradual disappearance of 'inefficient' informal sector through the process of development and consequent expansion of 'efficient' formal sector with the end result that informality becomes a marginal part of economic realm while formality becoming as in the advanced capitalist countries the 'normal' mode of economic activities (see Breman 1978). As often the case, however, the expected evolutionary path did not materialize (see Gray 2015:61-62). Despite the confident expectation that envisages a shrinking share for informal activities, not only the informal sector proved to be a resilient component of developmental context, it started to grow in majority of developing countries since its 'discovery' (Wood & Brewster 2007, Portes et al 1989). The fact that informal sector, despite being "an exceedingly fuzzy concept" (Peattie 1987, see Hart 1985), remains to be a defining element in the political economy of developing countries makes the differentiation and link between formal and informal economic actives important research topics (see for instance Tokman 1978, Mlinga & Wells 2002, Guha-Khasnobis & Ostrom 2006, Koçer 2009)

It is important to distinguish informality of labor from that of firms: within developmental context a large number of people, often migrants from rural to urban areas who are self-employed are regarded as involved in informal economic activities but the same expression may also be used in order to refer to firms, enterprises and sweat shops. Given that often many informal laborers are directly or indirectly employed by such firms (for instance by working at home as the last point in long production chain that operates on the basis of precarious agreements (Koçer 2015)) it essential to comprehend what makes a firm informal. Although this question must logically precede the inquiry of why firms become informal, the latter seems to attract more attention. This is because the dominant (and almost taken for granted) paradigm is to consider these two realms as distinct domains of binary or dualistic nature (Breman 1978) in the sense that belonging to formal or informal sectors is regarded as something that is obvious. In this sense informality (of firms) is often associated with economic activities that are carried out without complying with (or beyond) the regulations. The common hypothesis is that informality becomes an obligation for firms when they are burdened by excessive 'regulations and taxes' (Sassen 1994, Loayza 1996, Fortin 1997). Thus the [high] 'cost of being formal' which results from 'old regulations' that are

incompatible with the 'new' economic circumstances is pointed out as the main reason that compels firms to opt for informality (Ulyssea 2010, Tokman & Klein 1996, Loayza 1994).

The goal of this study is to take a step back from these taken for granted assumptions as to the dualistic nature of formal/informal divide and the reasons for informality and instead to scrutinize 'what' question before 'why' question about informality. It is premised on the idea that, as long as firms are concerned, formality and informality as two realms of economy do not refer to a dualistic/binary structure of clear separation but a continuum that consists of a large number of strategic choices. This approach is something different from acknowledging the 'heterogeneous' nature of informal activities (Tokman 1989, Mead & Morison 1996, Hart 1985). Instead it points out that there is a context-dependent grey zone of many shades in between pure formality and pure informality that enable firms to externalize some costs of their production processes so as to increase their profits at the expense of other actors, gradually converting the economy into a zero-sum game. Therefore this study reveals that what is often mentioned as the cost of formality is often the total price of inputs that are essential for production processes, and various forms of informality refers to free-riding on some of these costs that undermines the status of firms as truly capitalist entities.

In the following pages, I first outline the empirical facts that justify continuum-conceptualization and point out an analytical strategy to operationalize this approach. Secondly, I show that the principle of profit without appropriation that precludes any form of free-riding on behalf of firms is an appropriate tool to describe the status of pure formalness. The next step is to implement this principle in order to construct a formality inventory that would enable us to distinguish purely formal firms by focusing on opportunities for free-riding on infrastructure and on the replacement costs of human labor. After integrating all elements of this inventory in prose form I present an analysis that shows that only making very strong assumptions or methodologically flawed arbitrary choices as to what constitutes formality one can justify binary/dualistic conceptualization of formality. The final section discusses the results and points out new avenues for research.

From Formality into Informality: Continuum Conceptualization

The continuum-like conceptualization of formal/informal divide is based on three visualizations. Firstly, it implies a picture which is based on the fact that formal and informal realms are not separated entities each of which exists in isolation from the other. On the contrary, they are quite often functionally connected in such a way that the very existence of informal realm makes the operation and the formalness of the formal sector possible (Guha-Khasnobis & Ostrom 2006, Tokman 1978). Thus, in this sense formal and informal sectors are not separated by a gap or fracture but they are linked and therefore there is no divide but a connection and by implication continuity between them. Moreover, there is no equilibrium in this state of connectedness; boundaries of informal sector usually expands into the realm of the formal one (Kocer & Fransen 2009, Koçer & Hayter 2011, Williams 2013).The second visualization is about the nature of this boundary. For analytical purposes it should be envisaged as a gray zone rather than a dividing line. This zone of separation or more correctly this region of connection between formal and

informal realms essentially contains these two states as the two extremes of pure cases. In other words, there is a line or region running from pure formality into pure informality passing through many different gray states of operations that are characterized by amalgamation of various forms of evasions and compliances with the rules and regulations (Koçer 2009). Finally, the continuum conceptualization can be visualized as the outcome of the integrated nature of the social and economic realms in the sense that all forms of in-formalness can exists and persist due to the fact that social networks, norms and conventions allow informal firms to exploit social embeddedness of economy so as to externalize their responsibilities as capitalist enterprises while privatizing their profits.

In order to clarify this conceptualization and jointly operationalize its three visualizations one needs to identify all relevant elements of pure formalness by imagining "an ideal state firm" (in Weberian sense) that complies with all conceivable conditions of formality and place this image on the one extreme of the continuum to represent pure formality while putting its 'opposite' into the other extreme as the image of pure in-formalness, and explain the way in which this construction is linked with the embeddedness of economy into society.

This analytical strategy however requires us to find a principle that would allow us to identify and agglomerate 'all conceivable conditions' of formality. One way of doing this would be to take all national regulations and international norms that are officially endorsed by countries as the inventory of formality conditions and construct the ideal formal firm by using all the attributes stored in such an inventory. Although this approach would operationalize the statutory conditions and thus would be based on legally conceived reality, it suffers from lacking "an objective principle" in the sense that there is no compelling reason to discard the standard neoclassical claim that the conditions imposed on firms by legal norms would always be in compliance with the basic requirements of existence for enterprises operating under market conditions (see for instance Sassen 1994, Loayza 1996, Fortin 1997, Ulyssea 2010). In other words, one should be prepared to respond to the argument that if statutory norms undermine the existential basis of firms due to their failure to recognize (new) capitalist production relations, then it would be pointless to use such norms as benchmarks for formality as they would not be referring to a real world possibility; legal-reality may not match empirical-reality. In other words, formalness even in its pure 'ideal' state should not imply annihilation under market pressures and thus a purely formal firm should not be a non-existent entity.

Thus before one starts making an inventory of formality conditions, it is essential to have a guiding principle that would allow us to determine whether any given arbitrary formality element should be included into the list. Here it is useful to make use of Webb's argument (1912, Kaufman 2009) as to the nature of capitalist enterprise that gives us an objective principle that is intimately related to the concept of free-riding which has been explored (further) by Olson (1965). Webb's idea is simple and not very controversial: an organization of production is to be called 'capitalist firm' only if it can survive in capitalist market relations. The interesting thing however is that from this simple premise Webb, as a Fabian socialist, manages to construct an argument in favor of laborers. Olson, on the other hand, is well known for his exploration of the logic of collective action which has been criticized by many authors (Offe &

Wiesenthal 1980,Oliver & Marewell 1985, Oliver & Marewell 1988, Roy & Gwin 1999, Kelly 2012), but remains to be an important benchmark in conceptualization of societal existence, and his notion of free-riding has also been, though without being explicitly mentioned, a vital ingredient of Webb's conceptualization of truly capitalist enterprise. Free-riding simply refers to the tendency of actors (humans, firms, organizations) to prefer to contribute to the provision of public goods as little as possible while trying to benefit from them as much as possible. This is conceived by Olson as the basic challenge that needs to be overcome for any collective action to take place due to the simple fact that if all actors try to free-ride there will be no public good and all will suffer the consequences. He argues that unless there are selective incentives, individuals would prefer to free-ride on public goods without making any contributions. This rather pessimistic view implies that in order to maintain a social order it is essential to eradicate or at least minimize free-riding.

We can, by combining Webb's idea of capitalist firm with Olsonian concept of free-riding, construct a principle that would allow us to identify elements of formalness to be used in construction of the state of pure formalness. The basic premise is that market may operate on the basis of competition but it is essentially a social construct grounded on the socially conditioned and implicit cooperation between all involved parties -employers, workers, consumers and regulators- (Polanyi 1944, Granovetter 1985, Coleman 1988, Granovetter 2005, Buğra & Ataman 2007). Markets can deliver their promise of efficient coordination of supply and demand only if involved actors avoid exploiting this social premise for short-term gains by benefiting from it without contributing. Thus all rules, norms and obligations that prevent free-riding among firms on the social premise of markets so as to compel them to retain their character as true capitalist entities must be included into the inventory of formality conditions.

To comprehend this perspective better, it is useful to examine Webb's argument closely. The basic idea is simple: in order to qualify as a capitalist enterprise or firm, an organization must produce something, a product or service. And this final product (which needless to say may be an input for another firm as well as the consumable final thing destined for the end customer) is to be created by inputs such as raw materials, half-finished products, energy and, most crucially, human labor, and then it should be sold. The basic condition that would make an organization qualify as capitalist firm is that the sale price covers the expenses induced by all inputs fully and leaves an amount of surplus that becomes the profit. This description may sound trivial but contains a vital element: an organization becomes a capitalist firm only if it is able to cover the expenses of inputs completely. If not, then the emerging surplus would not be the profit. Instead a certain portion of it would essentially be the fee stolen from the providers of input factors that are not totally paid. Under such circumstances the organization would be externalizing its costs by not paying for all input factors and instead by appropriating these externalized costs in the form of 'fake' profits.

For instance, if a firm finds a way not to pay its energy bill, this would not only increase its profit remarkably but would also make it more competitive by providing an unfair advantage over the other firms that cover their energy costs. By exploiting this advantage the evasive firm can introduce very expensive production processes in terms of energy use or may hire many more workers than its

competitors, and increase its profits even more. The ironic and crucial point of course is that during this unfair competition the energy would still be provided for all involved firms by another (public or private) organization which would either cover the cost of the free-rider itself by reducing its own profits or by increasing its prices so as to distribute the unpaid energy cost of the free-rider among all other firms, making them cover the unpaid costs. This overall picture would be quite favorable for the free-rider but would have adverse consequences for all other firms. Their profits would be reduced, their capacity for new investments would be undermined and consequently the prospects for new employment creation would decline. Of course as the number of free-rider organizations that manage to escape from their energy costs increase the overall negative impact induced by this strategy on regular firms would also be substantial: reducing the effectiveness and employment creation capacity of the entire economy.

It is not difficult to imagine that there should be a threshold in the sense that there should be a limit to the total amount of externalized costs that can be imposed on other firms by free-riders. If for instance the energy cost of all free-riders equals to the profits of all regular firms then the entire economy would collapse since it would not be possible for any firm, including the free-riding ones, to continue to exist. This is important, because it points out the fact that free-riding on other firms' profits carries the seeds of destruction for the entire system of capitalist production relations.

Having this picture in mind, it would be appropriate to distinguish organizations that cover the cost of all production factors themselves from those that manage to externalize these costs partly or completely at the expense of the others. The former type of organization is to be called capitalist firms, that is, organizations within capitalist production relations that manage to create real surplus value which is not appropriated from any other organization or entity by refraining from paying the full price of any input that is used in production process. It is important to note that this definition of "capitalist firm" does not refer to a status that is attained once for all. Instead it implies a process or 'struggle' that needs to be reenacted permanently as the external conditions change and create temptations for free-riding for entities which hitherto deserve to be called truly capitalist firms.

Against this background, one may argue that those rules, norms and regulations that prevent free-riding among firms so as to make and keep them as truly capitalist firms rather than free-riders should be included into the inventory of items that describe the state of pure formalness.

There are two generic conditions that are essential for all production processes and thus relevant for all firms and by using the principle of 'being a capitalist firm' and determining elements of formality in relation to these two conditions we can arrive at quite a comprehensive description of pure formalness. First generic condition is that all firms need to make use of basic infrastructures that are essentially an agglomeration of public goods. And second one is that all production processes must make use of human labor. The basic argument of this study is that pure formalness as a state of being exists essentially to prevent firms from free-riding on the use of infrastructure and human labor.

Free Riding on Infrastructure

In order for any firm to operate it is essential to have an infrastructure which consists of transportation facilities (roads, bridges, energy lines, communication facilities, water supply structure etc…) and the basic security (policing, contract enforcement, and property rights) that make the circulation of goods and services possible and exchange relations across long distances feasible. This infrastructure has a public good character. It needs to be constructed and maintained by public authorities by using the money obtained from taxation. Thus, one may argue that any firm that fails to pay its taxes would be free-riding by making all other actors to cover the expenses of the most fundamental structures that make the very existence of production and services possible.

However, it is important to note that in order to avoid being labelled as 'free-rider' firms must not only pay their taxes in full but they also need to report their entire production process in terms of inputs and outputs so as to allow authorities to have a macroscopic picture of the functioning of economy which would enable them to determine the feasibility and necessity of new taxes so as to respond to the emerging needs for new infrastructures. This is because the way in which economy functions remains elusive (Keech 1995: 22-45) and this ambiguity compels public authorities to be permanently involved in monitoring of economic activities and making ad-hoc interventions, and for these attempts to succeed the authorities need accurate feedback.

This necessity gives the information a crucial role quite similar to that of taxes: without it the infrastructures cannot be maintained. However it may be tempting for every single actor to avoid providing information about their production process that may lead to closer scrutiny by authorities or by competitors while expecting all others to provide the required information about their processes. This is again a picture of free-riding that aims to benefit from other's compliance. Thus, not only restraining from any tax evasion but also the provision of full production and profit information is essential for a properly functioning tax regime that would be used to build, sustain and develop the necessary basic foundations of production. The implication is that from a fiscal perspective, a purely formal firm would report its entire input factors and product output both as quantity and value so as to reveal its actual taxable profit as transparently as possible and then would pay the incurring tax without resorting to any evasion. This behavior, if it becomes the norm, would enable public authorities to build a tax regime closely linked to economic performance and allow them to build and maintain a dynamic infrastructure.

Thus, one can argue that fiscal transparency and perfect compliance with the tax rules are two essential ingredients of pure formalness.

Now, let's look at how free-riding on human labor can occur and why it should be prevented.

Free Riding on (Replacement Costs of) Labor

Human labor is the inevitable component of any production process, regardless of whether it is manufacturing of an entity or provision of a service. Although technological advancements have been

gradually reducing the required human input for many manufacturing processes, one can still argue that even in the most technologically advanced production sites human labor remains essential, at least in the form of monitoring and providing emergency responses. Moreover the service sector to a large extent remains outside the technology-induced replacement of human labor with computerized machinery (Gordon 2016). Indeed, it is claimed that regardless of advancements the computerization would not be able to expand into the realm of non-routine mental and non-routine manual tasks and thus 'lousy' and 'lovely' jobs would always remain labor-intensive (Goos & Manning 2007 , Goos et al 2009).

Thus human labor is an essential input factor in all production processes. However, it is also the most elusive one. This is because labor appears in the form of a human and cannot be acquired independently from his/her body (Hyman 1975). In fact human labor may be considered as the performative acts of a biomechanical device which, like all other machine-based input factors, needs to be maintained and sustained. Thus it has two cost components: the price for the actual exertion of labor and the replacement cost of the machinery that performs this exertion. This abstract and detached description points out the commonality between machines and humans: any firm who needs to make use of a machine either directly by purchasing it first and then utilizing its products or indirectly by only buying its products must also cover the replacement costs of the machine either directly or as a part of the required price. Machines must be oiled, fueled, repaired and upgraded, and these requirements constitute the replacement costs of the machine. This observation applies to humans as well: besides paying for their exertion of labor, the replacement costs of labor must also be covered by those who purchase the exerted labor. This replacement cost appears in the form of accommodation, nutrition, health and leisure expenses of laborers. Moreover, unlike inanimate machines human actors need security (Freyberg-Inan & Koçer 2012) and meaning in their lives in order to recreate labor power consistently in the long run (Kymlicka 2002:166-208). Only if all these costs are covered by wages and through the way in which work is organized so as to avoid extreme alienation (Braverman 1998) then human beings would be capable of recreating their labor power so as to exert it at the service of employers.

However, again unlike inanimate machines, humans are not created for the sole purpose of exerting labor power in order to fulfil necessary parts of production processes. Their capacity to perform productive acts is not intrinsically commodified (Polanyi 1944, Buğra & Ağartan 2008). The very existence of human beings, unlike inanimate machines, is linked to a complex set of meanings and purposes that emanate from societal existence with the result that any human being is encapsulated and preserved by social networks that consist of people who are connected to each other with emotions, expectations and obligations (Coleman 1988). The crucial by-product of this intrinsically non-commodified form of existence is that if replacement cost of labor is not covered entirely by the organizations that purchase labor then the social network surrounding the laborers would cover these costs due to various forms of emotional and normative concerns. In other words people who sell their labor but do not get sufficient remuneration so as to cover all their needs would be taken care of by the society (Webb 1912, Kaufman 2009). It is important to realize that this would be, from the perspective of labor-purchasing organizations nothing but another form of free-riding which is conceptually equal, for instance, to finding a way to avoid paying the energy cost of production processes. In the case of labor too the uncovered cost of the input factor

would be externalized and thus would be paid by some other actors, and consequently the profit of organization would consist of two components: real profit and appropriation resulting from free-riding.

It is important to realize that like in all forms of free-riding, in the case of free-riding on the replacement costs of labor too there is a threshold. If all laborers find themselves in the position of insufficient remuneration that renders complete coverage of replacement costs of labor impossible then it would not be possible for society to cover unpaid part of replacement costs for any single individual. This outcome, which is an inevitable result of increasing inequality and accumulation of capital in the hands of an extremely small minority, would threaten not only all economic activities but would also make the surrounding political system unsustainable. So how can this form of free-riding be prevented through norms and regulations? In order to answer this question one should examine the employment relationship closely so as to detect the way in which firms can avoid paying for the replacement cost of labor.

Three Forms of Uncertainty

Employment relationship regardless of temporal and spatial differentiations across societies is always affected by three distinct types of ambiguities: external uncertainty, intrinsic uncertainty and hazard uncertainty. The formality elements that we need to examine in relation to free-riding on human labor are those which can affect the way in which firms cope with the first and the last of these, namely, the external, and hazard uncertainties. However, it is also essential to examine the second one, that is, intrinsic uncertainty because this form of uncertainty creates some dynamics that may falsely appear as a form of free-ride on human labor that occurs quite often in relation to external and hazard uncertainties. Thus we need to scrutinize all three forms in detail in order to derive and clarify elements for our formality inventory.

The external uncertainty refers to the possibility that there may be contractions, expansions and shocks in product (or service) markets and may affect the demand for firms' products (or services). Some of these dynamics are of predictable nature such as seasonality of demand but it is always possible to encounter an unexpected rise or fall in demand due to unprecedented or unexpected circumstances. Firms usually want to retain instruments in order to have the capacity to respond to trends that may be set in motion by predictable and unpredictable forms of this external uncertainty. Unless they find new markets or introduce new products or relocate their businesses so as to fundamentally alter their calculus about all input and output factors or opt for 'high road' and invest in increasing the skills of their employees (Kalleberg 2009:5, 13) the main strategy that may allow firms to cope with external uncertainty would be to adjust their labor costs (Gebel & Giesecke 2011:18).

One possible way of doing this is to adjust wages in accordance with fluctuations in demand so as to reduce firm's financial obligations that may undermine profitability. In practice this would mean to increase the wage differentiation among employees, possibly offering lower wages to people that are employed during slack periods or employing highly skilled people without changing wage levels so as to increase productivity without paying for it (Pollmann-Schult 2005:469, Okun 1981:76). However, it is also possible to use a flexible wage strategy which may enable firms to couple wage differentiation

automatically with external uncertainty. This is based on the idea that only a certain portion of the remuneration would be fixed and recorded, and additional payments would be made only if/when 'times are good'. In this way, the adverse consequences of external uncertainty, instead of being confronted by the firm, would be passed on to workers. The partial wage registration has also the added advantage of reducing social security premiums that is to be covered by employers (Williams 2013, Koçer & Fransen 2009).

Of course it is also possible to attain the same outcome without resorting to partial wage registration by adjusting working-hours rather than wages. This can be done by employing workers officially on a part-time basis, and asking for extra work hours whenever the demand rises while retaining the same pay-scale for these hours. This arrangement in practice may imply that workers almost always work near-full time on the basis of a part-time contract. This system would not only reduce social security premiums that is to be covered by employers but would also enable them to quickly reduce their labor costs during slack periods without any official difficulty as this would mean to going back to the working hours stipulated in the contract.

It is clear that explicit wage differentiation through partial registration or implicit wage registration through working-time adjustments are both based on free-riding on behalf of the firm: social network surrounding the workers must cover their needs in periods of high external uncertainty because in such conditions firms would only pay a small (registered) portion of the wage which is unlikely to cover replacement costs of labor entirely, enforcing families to cover the unpaid part of the full cost. Similarly, reducing firms' share of social security premiums would either impose a social cost now because workers would have to cover more of the contribution themselves presumably with the help of their families, or this social cost would occur in future if workers retire with an insufficient pension that would enforce their social network to help them.

The other instrument that firms can use to cope with external uncertainty is to reduce the number of secure contracts that they offer, and instead give various forms of insecure contracts at least to some employees creating a core-periphery segmentation in their workforce (Kalleberg 2000:347, Vallas 1999, Hipp et al 2015:8-9, Reichelt 2015:560, Gash 2008:652, Olsthoorn 2015). The simplest form of insecure arrangement is fixed-term contract which refers to an employment relationship based on written agreement between a firm and a worker which, besides other things, stipulates that the duration of employment is limited and it will be terminated at a pre-determined date. Temporary agency contract is another and more sophisticated form which involves two employers and an employee. Within this arrangement a firm (a temporary work agency in the form of a real firm or a real person who makes deals with workers) is hired by another firm to provide employees for a specific task for a fixed period. Thus employees while actually providing a service for the second firm officially work within the first one. The distribution of various responsibilities for and authority over workers between two firms may be a contentious issue, and insecurity may be inserted into this triangular relationship in many different ways (Kalleberg 2001). For instance the agreement between the hiring and the providing firms may be permanent (the latter may even be a part of the former) but the providing firm may only offer insecure

contracts to workers while itself may operate on the basis of a secure and long term deal with the hiring firm or both the relationship between the hiring and the providing firms and between the providing firms and workers may be precarious. Moreover, this entire relationship may also occur officially in the form of subcontracting so that the providing firm does not make an agreement with the hiring firm for providing workers but for taking over a part of the production, though this entire arrangement may still imply that employees work in the premises of the hiring firm but remain employed by the providing firm on the basis of a some sort of insecure contract (Koçer & Fransen 2009). Finally, working only on the basis of verbal agreements (i.e. having no contract) is another and quite a common form of insecure arrangement which itself contains large variety of employment circumstances. This type of arrangement may be based on quite solid social relationships such as employment of a family member by a family firm but may also imply quite exploitative circumstances in which workers are practically deprived of any sort of guarantee and work under highly precarious conditions (Williams 2009, Koçer & Hayter 2011).

It is obvious that all insecure employment arrangements are based on free-riding on behalf of firms which enable them to pass-on the risks incurred by external uncertainty to the society. This is because firms, by employing people on the basis of insecure contracts, force social networks of workers to assume responsibility during high external uncertainty periods for the replacement cost of labor. This is free-riding due to the fact that as soon as external uncertainty is reduced firms can (and often do) employ the same people for work. It is important to see that this dynamic is conceptually and practically identical with an arrangement that is based on delegating the maintaining costs of inanimate machines used in production to third parties without offering remuneration to them whenever the need for machine's input for the production process is not vital but reusing the machine as soon as it is needed, thus free-riding on these maintenance costs.

One can see that indexing wages in some way to the fluctuations in product markets or reducing the security of employment contracts that they offer firms may avoid the adverse consequences generated by external uncertainty and instead force society to bear them; privatizing profits while socializing the risks. These two options (wage differentiation and job-security differentiation (Barbieri 2009)) as explored above are essentially based on free-riding on human labor, making the society pay for the replacement cost of labor so as to preserve the profitability of firms. It is important to note that the rise in nonstandard forms of employment and the resulting expansion of informal economy across not only in developing countries but also in advanced capitalist countries during the last three decades is the aggregate result of the firms' response to increasing external uncertainty generated by globalization (Kalleberg 2009, Hammon et al 1994).

Against this background we may argue that;

Pure formality should contain elements that preclude implicit (through working hours) and explicit (through remuneration) forms of partial wage registration so as to prevent these free-riding options. Moreover, pure formality must also prevent firms from using insecure contracts in order to avoid the adverse consequences of external uncertainty at the expense of social networks of their workers.

However, it is also crucial to realize that not all forms of wage differentiation and insecure employment should be considered as free-riding. There are some legitimate concerns that firms may have for making use of these instruments without having the intention of free-riding and to acknowledge these concerns we also need to examine the intrinsic uncertainty that is embedded in all employment relationships. This form of uncertainty results from the fact that it is not possible for firms to prepare labor contracts that would outline in advance the exact content and implications of the tasks for which they need to hire workers (Kalberg 2009:12). Thus there is always a risk that they may give the job to a wrong person whose skills may initially appear to be matching well with the job requirements due to under-specification of the tasks (Reichelt 2015, Spenner 1990). In other words, firms cannot know exactly who they should employ before actually employing them. Educational degrees and past experiences would definitely help sorting out a small group of candidates from a presumably large group of applicants but the uncertainty remains within this smaller group (Pollmann-Schult 2005:469, Spence 1973). To this ambiguity about the match between tasks and skills one should also add the well-known productivity problem: once employment relationship commences so does the effort bargaining which refers to the challenge that employers expect high productivity from employees (Hyman 1975:19-20, Behrend 1957) but this can only be accomplished by sincere commitment of the latter to the job. Thus, even if there is no unpredictable mismatch between tasks and skills, it is always possible that the correctly equipped people in terms the actual requirements of the job may not be sufficiently devoted, and they may remain unproductive. One may name all these ambiguities about the possible discrepancies between tasks and skills, and, between expectations and commitments as the intrinsic uncertainty embedded into employment relationship.

Firms need to have instruments that would allow them to cope with the various forms of this intrinsic uncertainty. To deal with the discrepancy between expectations and commitments in terms of productivity, firms may pay more than the wage level formed by market signals, that is, may offer 'efficiency wages', so as to trigger among employees an urge for reciprocating by putting more effort to work (Akelof 1984, Katz 1986) or they may make such 'efficiency' wage premium conditional upon high productivity. This may look like the partial wage registration strategy which as mentioned above can be used for firms to cope with external uncertainty by free-riding on human labor but there are two differences. Here, the fixed wage component is sufficiently large to cover the entire replacement cost of labor and the wage premium indexed to productivity itself is also registered. Thus wage differentiation that is introduced on the basis of efficiency wage idea in order to cope with intrinsic uncertainty is unlike the wage differentiation that is introduced in order to respond to external uncertainty, does not lead to free-riding on human labor.

On the other hand the usual strategy to cope with the other component of intrinsic uncertainty, that is, possible mismatch between tasks and skills is offering temporary contracts to would-be employees for a probation period and observing their actual performance (Reichelt 2015:560, Gash 2008:652). This strategy also appears to be similar to the use of insecure contracts in order to pass the adverse consequence of external uncertainty to workers' social networks but in this case the insecure contract is of strictly temporary nature and would be replaced by a secure one as soon as the firm can be sure that the person can perform the tasks associated with the job.

Thus one may argue that, if insecure contracts are used strictly for probation periods with the intention of accurately assessing the match between skills and tasks, then they would not be instruments for free-riding on human labor.

However, there is a form of free-riding on human labor in relation to intrinsic uncertainty that deserves scrutiny: the impact of social categories and ties on employment outcomes. It is well known that firms and individuals make use of their social connections in order to seek employment or to find employees. From the perspective of firms this type of search has the advantage of reducing the intrinsic uncertainty because the credentials provided by social networks about would-be employees are usually much more accurate about the possible match between skills and tasks, and about the productivity and commitment levels compared to formal search strategies that are based on advertisements (Gerxhani & Koster 2015, Montgomery 1992, Granovetter 1973). However, it is also possible that certain individuals would be employed due to their advantaged social status based on family or kinship ties to the firm owners (see Grieco 1987). The likely outcome of such non-merit based employment is that the loss of productivity resulting from lack of competence of such individuals would have to be compensated by other workers by extra work and effort. This would mean that those who are employed on the basis of their merits need to cover the cost of those who owe their jobs to their privileged positions, and this would be an implicit form of free-riding on human labor. Of course the opposite may also be true if certain people who are discriminated due to their natural features (ethnicity, race, sexuality etc…) are employed on the implicit condition that they would need to spend more effort at work as a form of showing their appreciation for being employed in the first place. This would once again be a form of free-riding on human labor.

Thus purely formal firms would make use of their formal job requirements as they employ people and as they make effort demands. Employees should not be treated differently in this sense due to their privileged or unprivileged position.

The third and final form of uncertainty embedded in employment relationship is hazard uncertainty. This term refers to the fact that production processes are always potentially or actually detrimental to human health and may unexpectedly lead to serious injuries or fatalities (Eastman 1910, Viteles & Brief 1932, Freidman et al 1967, Colquhoun 1976, Leplat & Rasmussen 1984, Nag & Patel 1998). This is quite obvious for the manufacturing sector which often requires the use of toxic substances, extreme temperatures, dangerous chemical reactions and application of huge amount of physical force through machines. Needless to say that all these ingredients pose serious physical dangers for those workers who contribute to or complement the production process with their labor. The detrimental effect of production may be less obvious in service sector jobs but here too it is undoubtedly present. Depending on the nature of tasks the hazardous consequences may be psychological -for instance due to extreme time pressure- (Harrington 1994, Fagan 2001), social - because of unusual work hours that undermine work & family balance- (Clark 2000) and physical. The crucial point is that to prevent or minimize the hazardous consequences of production processes it is imperative to develop job-safety cultures or regimes which besides taking all precautionary steps in the form of purchasing protective tools introducing alarm and

warning systems, and limiting work-hours also require training of employees and careful monitoring of work processes (see Guldenmund 2000).

The safety regime is an integral part of any production process not an optional addition. However, quite often it is possible and therefore may be tempting to produce without introducing the required safety regime/culture fully or sufficiently as this would reduce production costs and thus would increase profits. It is clear that it would be, at least in the short run, workers who would bear the consequences of gaps in safety. They may become permanently disabled or gradually incapacitated as a result of insufficient or non-existent safety regimes/culture. Once again, in such circumstances, workers would lose their ability to take care of themselves through work either completely or partially and it would be, at least to a certain extent, their social networks that would have to bear the cost of their living, and this would be once again free-riding on human labor. This is because by abstaining from introducing the necessary safety-regime employers once again delegate a part of production costs to third parties in the form of consequences of hazard uncertainty.

Therefore it is imperative that the state of pure formality should compel firms to take all necessary precautions in order to minimize hazard uncertainty themselves. One way of ensuring this attitude and preclude delegation of costs explicitly would be to make employers financially responsible for the consequences of work accidents or other hazardous results of work unless these outcomes can be shown to be the explicit ignorance of rules and regulations by workers themselves.

Embedded Monitoring Mechanisms

From the preceding discussion one may conclude that there are too many temptations for free-riding for firms, thus it would be rather difficult for them to keep their entirely formal status and their truly capitalist character. Fortunately there are two potential monitoring mechanisms that may 'naturally' emerge in employment relationships: collective representation and subcontract relations. This potential, in both cases, is intimately linked with the nature of power in employment and production relations which is always characterized by inequality. Despite the connotations of linguistic usage of the term, power is not something that is embedded into any given actor but it is an attribute of the tie between actors that determines the extent to which one of them can manipulate the relationship so as to render it more conducive for its own interests, quite often with less favorable outcomes for the other (Taylor 1989)

From this perspective, the unequal power distribution in employment relationship is obvious. While employers have the means of production, acquire necessary business connections that make marketing of products possible and almost always can find a replacement for any given worker, the latter only has the labor power to sell which is usually not endowed with highly specialized skills. Moreover, any single employer, when negotiating with a worker, does this on behalf of the firm, thus appears as an

organization, which provides additional strength to his/her arguments[1] but workers can only appear as single individuals who has limited resources which reduce the possibility of concluding job negotiations with most favorable outcomes (Kirkbride 1985).

The most likely outcome of this imbalance of power is that as long as employers bargain with individual workers the likelihood of resulting contract terms to include clauses that would ensure the full coverage of replacement costs of labor would be quite low. In order to create a situation in which employers and workers can negotiate the terms of employment without a hugely asymmetric power imbalance collective representation of workers is essential (Hyman 1975, Offe & Wiesenthal 1980, Wright 2000). This would convert the bargaining between an individual (i.e. worker) and an organization (i.e.firm) into a bargaining between two organizations each of which command somewhat comparable resources that allow them to exert pressure and demand concessions, and this metamorphosis would increase the likelihood that the resulting terms of employment would create remuneration rules that would allow workers to cover the replacement costs of labor. Indeed given that production processes are affected by the dynamics of external uncertainty which may unexpectedly increase and change the way in which firms handle their costs (for instance by reducing wages through partial registration or elusive time arrangements, or by leaving gaps in safety regimes etc..), it is essential to have a dynamic monitoring system that is permanently involved in ensuring that firms do not opt for free-riding instead of devising innovative solutions. Therefore collective representation of and collective bargaining for employees may be considered as an embedded monitoring and response mechanisms that would closely observe whether a gap between the cost and price of labor emerges as a result of firms' response to external uncertainty and would prevent replacement costs to be delegated to society under such circumstances. This implies that an effective collective representation mechanism would ensure that firms would remain 'truly capitalist entities' which entirely pay for all input factors that are essential for production process.

Therefore, one may argue that collective representation and bargaining should be added into the inventory of pure formalness that ensure that firms are not tempted to free-ride on human labor in order to figure out a short-cut response to the dynamic changes occurring in their environment.

The other potential monitoring mechanism that naturally emerges in contemporary production relations is subcontracting. This terms refers to a relationship between two firms in which one of them delegates a part of its production process to the other one either temporarily or permanently. Firms can opt for subcontracting in order to cope with unexpected rises in demand, benefiting from availability of technology or skills, and to reduce labor costs (Frenkel 2001, Taymaz & Kılıçarslan 2002). Subcontract relations, like employment relationship, is often characterized by inequality of power. The main firm which hires subcontractors enjoys high degree of power over the latter, and this imbalance may be used in order to enforce subcontractors to comply with a larger portion of the formality rules (Koçer & Fransen 2009). Obviously, quite often reduction of labor costs appears as the primary reason for opting for subcontracting

[1] Besides institutional know-how about how to negotiate, and institutional resources that reduce the time pressure to conclude the agreement, one can point out the attribution of rational and detached position for the demands and expectations that can be articulated

and the implicit deal in such business relations is that the main firm, while itself remaining entirely formal, benefits from its subcontractors' breach of formality that allows the latter to reduce labor costs on behalf of the former. In this sense subcontracting may be seen as a trick that allows main firms to retain a formal appearance while resorting to informalities behind the scenes.

Given this logic the idea that main firms may force their contractors to comply with formality rules may appear unrealistic. However, during the last two decades the rising concerns about corporate social responsibility that appeared as a result of consumer-awareness campaigns launched by international NGOs which exposed inhumane conditions prevailing in subcontractors of prominent brands have rendered the main firms accountable for the work conditions across entire production chain that they use for their productions. These developments have triggered the emergence of private labor regulations, set of self-imposed rules by prominent firms, that make compliance with some basic formality rules as the condition for obtaining lucrative subcontract deals (Bartley 2003, Doh & Guay 2004, McWilliams et al 2006, Martin & Moon 2008). Obviously, private labor regulations are neither universally common nor identical or equally effective (Fransen 2011) but their very existence show that subcontract relations that usually generate more informality can be, with some external pressure, converted into monitoring and enforcement mechanisms that may enhance formality.

Moreover, the logic of labor cost reduction through subcontract relations makes clear that without examining the production chain that is generated or participated by firms in its entirety one cannot be sure whether the appearance of formality that firms manage to display really concurs with the reality of their actual production strategies which may with help of subcontracting involve many forms of free-riding. Therefore, as one builds an inventory of formality conditions, it is essential to examine whether the compliance with formality occurs across entire production chain rather than appearing only in its most visible components.

Thus, not only a firm's formal appearance but its willingness to make formality a condition in subcontract relations should be itself a formality element that needs to be included into the inventory if the formality needs to be something that precludes free-riding in production relations.

Formality Inventory

Up to this point we identified a lot of elements that need to be included into our formality inventory. Now, it would be useful to give a full description of this inventory in order to emphasize the multidimensional nature of formalness. The full account should read as follows:

A formal firm gives official and mutually binding work contracts to all its workers and ensures that any other subcontract firm that carries out some parts of the production or performs a service also has the same attitude so that any person who carries out a task that directly contributes to the production process has a written and legally binding contract which implies that regular contributions are made to the social security of all employees regardless of their status, and both commencement and termination of employment relationship occurs in accordance with mutually agreed rules that are not misused to

respond to external uncertainties. Moreover a formal firm makes all salary and wage payments in a registered fashion so that the entire labor cost is officially recorded in books and the social security premium is contributed in relation to the actual wage for all employees including those who are officially hired by the contractors. In other words official remuneration in books must be equal to actual labor payments for all workers employed by the firm through work contracts or related to the firm through subcontractors. Similarly, the duration of work including extra hours must always remain within the statutory limits stipulated by law, and all extra and irregular hours must be remunerated fully without delay in accordance with a scale that ensures higher rate of payment. Moreover, if/when reduction in work hours takes places unexpectedly due to fluctuations in demand or any other reason that is beyond the control of the employees, then it must be the firm not employees who bear the resulting cost. In other words, externally imposed deviations from stipulated working hours should always be compensated in favor of employees.

On top of these formality requirements that outline the way in which commencement, termination, remuneration and temporality of work is to be arranged one should also add all safety related issues that ensure that statutory precautions are taken and regularly checked and updated by employers so that all employees involved in firm's operations directly or through subcontracts perform their tasks securely without being exposed to any kind of physical or psychological harm. This means that in the case of accidents the firm must assume full responsibility and make the necessary compensation to employees unless it can be proved that the outcome is plainly due to ignorance of safety rules by the employees. To arrive at the picture of a purely formal firm one must enhance the conditions outlined up to this point by the collective representation rights as well. These rights should imply that workers, so long as they wish, can organize themselves so as to launch a collective organization or may choose to join an existing interest representation organization in order to negotiate all conditions of work, including but not restricted to wages, hours, leave periods and safety issues. Thus employees, including those employed by subcontractors, should be free to affiliate with trade unions and/or appoint a representative who would communicate and bargain with employers on their behalf.

It is crucial to complement this overall list with the condition of social blindness in the sense that the way in which employees are socially connected to or distanced from the owners or managers or other employees of the firm should have no influence on their employment circumstances. In other words, no employee should suffer from discrimination or forced to admit lower standards or enjoy privileges for the sake of securing her/his job or to reveal gratitude or to display reciprocity due to social ties such as family, kinship, ethnicity, religion, gender or political views.

Analytical Framework: Variations in Continuum

It is clear that this entire account encapsulates a large number of variables and it is instructive to draw a more analytical picture by looking at the constituent elements. This is given in table-1. Here all the elements of the formality inventory are succinctly reformulated and for the sake of convenience letter symbols are attached to each element. This picture allows us to see the continuum-like nature of

formal/informal divide better and it also clearly reveals that in order to attribute a binary choice character to this division one needs to make very strong assumptions. Let's elaborate on these claims.

Table-1 shows that one can think of formality as an aggregated outcome of all these 15 conditions. As mentioned in the column titled 'strategic options', firms have a binary choice about each single condition in the sense that they may opt for complying with (thus choosing 1) or abstain from (and choosing 0) each one of them. The clustering-I, by putting each condition as a distinct dimension requires us to assume that all conditions are sufficiently independent from each other in such a way that a firm by making a strategic choice of 'free-riding' or 'not free-riding' in a given dimension would still retain a sufficient degrees of freedom of choice in all remaining dimensions. This approach would generate a 15-dimensional space that consists of 32768 discrete points. We may rename two of these points explicitly: opting for 1 in all dimensions would create the state of pure formalness, and making the opposite choice in each dimension would lead to pure in-formalness. It is instructive emphasize the fact that in between these two extreme positions one can find 32766 distinct points each of which represents a distinctive color or shade in the large region that connects formality with informality.

However, it is possible to argue that some dimensions of formality are intimately connected to each other in such a way that a particular choice in one of them would have binding consequences for the remaining ones. This possibility has been explored in table-1 in columns clustering-II to clustering-VIII.

Table-1: Dimensions of (in) Formality

conditions of formality	strategic options	clusterings							
		I	II	III	IV	V	VI	VII	VIII
fiscal transparency	0 or 1	F1	F	F	A	K	L	M	Z
complete compliance with the entire tax-code	0 or 1	F2							
formal and legally binding work contracts with all employees	0 or 1	W1	W	G					
complete registration of wages	0 or 1	W2							
full payment of incurring social security premium for all workers	0 or 1	W3							
complete registration of extra and irregular working hours	0 or 1	H1	H						
full and quick compensation of extra and irregular work hours	0 or 1	H2							
having a higher pay scale for extra and irregular work hours	0 or 1	H3							
non-deduction of reduced working time resulting from external reasons	0 or 1	H4							
compliance with all safety requirements	0 or 1	S1	S	S	S				
compensation in the case of accidents	0 or 1	S2							
collective representation	0 or 1	C1	C	C	C	C			
collective bargaining	0 or 1	C2							
social blindness	0 or 1	B	B	B	B	B	B		
enforcing all these conditions in subcontract firms	0 or 1	E	E	E	E	E	E	E	
number of dimensions in the resulting multidimensional space		**15**	**7**	**6**	**5**	**4**	**3**	**2**	**1**
number of positions that firms can chose in the resulting multidimensional space		**32768**	**128**	**64**	**32**	**16**	**8**	**4**	**1**

It is instructive to reflect on these columns shortly. Clustering-II is based on five assumptions. Firstly it is assumed that complete compliance with the tax code is not possible without full fiscal transparency and vice versa. This generates a single formal condition (F). Similarly, clustering-II also implies that formal and legally binding work contracts would enforce firms to register all wages in their entirety, and consequently they will have to make necessary social security premiums without evasion. The result is to merge all wage

variables into a single indicator (W). Moreover, it is assumed that complete registration of extra working hours and their full and quick remuneration are connected with each other and with the necessity of higher pay scale for extra working hours and with the condition of no-downward income adjustment due to reduced working time so that fulfilling any one of these requirements would make the remaining three inevitable. The outcome would be binding all working-hour indicators so as to create a single condition (H). Clustering-II also assumes that safety related formality conditions are mutually binding so that complying with all safety conditions would imply that in case of accidents firms would make the required compensation and the readiness to make such compensations makes the compliance with all safety conditions inevitable. This amalgamates two safety conditions into a single entity (S). Finally, clustering-II requires collective representation and collective bargaining to be mutually binding conditions so that allowing one in firms' premises would inevitably lead to the other. This logic generates the indicator of workers' collective action (C). All these assumptions reduce the number of independent formality dimensions to 7 which jointly generate a space that consists of 128 distinct points. Once again reserving two points that contains only 1 and only 0 in all dimensions for pure formality and pure informality respectively leaves us with 126 distinct ways of being in between formality and informality.

Clustering-III adds one more assumption. Here the mutual determination condition is extended so as to link all wage related formality conditions (W) with all working-hours related elements (H) so as to convert them all into a single binary choice (G). The implication is that not only if a firm complies with one of the wage formality conditions, it would comply with all of the rest, but this compliance would also compel the firm to become fully formal in all work-hour related conditions. And of course the reverse of this statement would also be true. This simplification would reduce the formal/informal connection into a region defined by 6 dimensions that generate 64 distinct forms, and excluding pure forms would still leave 62 different ways of being in between formality and informality.

Clustering-IV makes one more connection: now fiscal transparency and full compliance with tax code, the two conditions which are already connected above, are linked to the full formality in wages and working hours that are assumed to be mutually binding in clustering-III. The resulting binary indicator is (A). This merger implies that fiscally transparent firms would comply with all wage and working hours conditions of formality, and complying with these conditions would enforce firms to become and remain fiscally transparent which of course would also make them pay all their taxes fully without evasion. If this assumption is realistic, then we will have a formality description that consists of 5 dimensions and 32 distinct points which after the two points representing the pure cases are excluded leaves 30 distinct positions for the region that connects formality with informality.

In clustering-V the safety indicator that captures whether a firm complies with all safety regulations and pays compensation in case of accidents (S) is connected with the joint condition of fiscal transparency, wage registration, and working hour compensation (A), converting these two indicators into a single one (K). This operation once again reduces the formality dimensions. Now we have 4 dimensions that generate space of 16 points that reserves 14 positions for circumstances that lie in between pure formality and pure informality.

Clustering-VI amalgamates the binary indicator K emerging from previous steps which shows whether a firm complies with all safety regulations, registers and pays wages fully, accounts for all working hours, and remains fiscally transparent or does not do all these things at all, with the collective action variable (C) that depicts whether workers enjoy collective bargaining and representation. This generates the variable L with the result that now we only have left with 3 formality dimensions that allow 8 distinct points. Reserving two of these positions for extreme cases still leaves us with 6 in-between points that are neither fully formal nor fully informal.

Clustering-VII merges L variable with the condition of social blindness indicator (S) which shows whether all workers in a firm are employed on the basis of merit. The result is binary indicator M. At this stage we only have 2 dimensions that create a small space of 4 points which still leaves two positions that are distinct from each other and from pure cases of formality and informality.

Final clustering in table-1 merges the remaining indicator (E) which shows whether a firm enforces the single formality condition (M) that emerges out of the amalgamation of 14 conditions in all subcontract relations that it is involved. The outcome of this integration is Z indicator. Now we have a single dimension for determining whether a firm is formal or informal. There is no in-between states of existence of firms; they're either fully formal or entirely informal.

One can see that the formality conditions depicted in table-1 may be used to generate both the binary and continuum conceptualizations of formal/informal divide. But it is crucial to note that the continuum conceptualization remains intact in the presence of many assumptions each of which wipes out some dimensions of complexity about the nature of formality but the binary conceptualization appears possible only if this process is taken to its most extreme form so as to causally link all formality elements and reduce them into a single condition.

Discussion and Conclusion

If the clear implication of the preceding analysis needs to be stated explicitly once again it can be formulated succinctly as follows: from formality into informality there are many positions none of which is entirely formal or informal, and, each of which is clearly distinguished from each other on the basis of the form of free-riding that it allows firms to enjoy. Thus the best way of conceptualizing formal/informal divide is to see this entire picture as a continuum that is generated by a large gray zone which contains many shades of gray. There can be three different objections to this conceptualization, and it would be appropriate to shortly reflect on them.

Firstly, and most easily, one may argue that some of the elements included into the formality inventory are wrongly identified and thus should be excluded or there are some other elements that should have been in the inventory but overlooked. This means that it is not the underlying identification principle, namely, the condition that firms must operate in such a way that they retain their truly capitalistic character by always paying for all their inputs and still make profit, but, the way in which this principle is interpreted in particular cases is not entirely correct, and thus some elements are included into the

inventory incorrectly while others being forgotten. In order to justify such an objection one needs to articulate the contradiction or mistake in the application of the principle so as to qualify or disqualify particular formality elements. The important point is that unless such objections and interpretations lead to a radical reduction in the inventory so as to decrease the number of included elements into a single condition then the main conclusion of the analysis, that is, it is the continuum not the binary conceptualization that captures the essence of formal/informal divide remains intact.

Second possible objection may be about the way in which included elements are related to each other: whether or to what extent they are to be merged or integrated so as to create composite conditions of binary nature. How sensible are these steps of integration? It is clear that one cannot realistically argue that 15 formality elements contained in table-1 are all independent from each other. Probably, at least some formality elements must be linked in some way so as to justify considering them as constituting ingredients of a single factor that are simultaneously determined by the same strategic choice. However it is also obvious that the process of merging all or most of these conditions on the basis of strong assumptions of mutual determination should be equally detached from reality. Probably, some of the formality conditions are indeed sufficiently linked so as to make them mutually conditioning but some others are quite independent from each other. Of course, one should not discard the possibility that there may be situations in which one formality element determines the choices about the other one but remains independent from the reverse effect. Moreover, the nature of degrees of freedom in this entire inventory is probably not something constant. It would not be surprising to spot that the mutual dependence of formality elements may be a function of the surrounding environment such as fluctuations in supply and demand or the willingness of authorities to tolerate some forms of informality in some periods due to political, social or economic reasons. Therefore it would be reasonable to concede that the way in which some formality elements are linked to each other and the nature of this link would be affected by spatial and temporal differentiations, and thus it would not be surprising to observe that the nature and texture of continuum between formality and informality would not be identical across countries and between historical episodes. This argument implies that a prerequisite for understanding the implications of informality is to draw a context-dependent picture of formal-informal continuum by identifying the nature of dependencies between formality elements in a given country. This exercise would reveal how many shades of gray exists in between the modes of pure formality and pure informality, and allow us to comprehend strategic choices that firms have. Complementing this initial step with an approximate money value for the unfair advantage that is obtained at each gray point would also enable us to see the magnitude of free-riding in a given economy that prevents it from being efficient.

Finally, one may object the continuum conceptualization at a very fundamental level by disagreeing with the underlying principle of selection that is used to determine formality elements given in table-1. One may easily discard all arguments that arbitrarily chose only one empirical condition as the reference for formality without explicitly mentioning the selection principle that justifies this choice while disqualifying all other possible formality conditions so as to adapt a binary divide conceptualization. This is clearly a methodologically flawed approach. Thus it should be acceptable to take seriously only those who object the selection principle used in this study on the basis of the claim that there are or may be better

principles. This means arguing against the idea that considering all norms, rules, regulations and mechanisms that prevent firms from free riding on infrastructure, human labor, or any other input is an appropriate method for determining formality elements requires to formulate an alternative selection principle . It is important to recall that this prevention of free-riding principle is chosen because it makes firms to retain their truly capitalist character by enforcing them to create surplus value rather than disguising appropriated income of other actors as profit. Therefore objections to continuum conceptualization on the basis of the underlying rule of selection may be premised on the idea that one can better capture the profit without appropriation character of truly capitalist enterprises with another succinct principle. Any such suggestion would be a valuable contribution to the discussion about formality and informality. However, it is also possible to pose a much bigger challenge by arguing that being a truly capitalist firm has nothing to do with any principle except for that of making profit. In fact one may claim that truly capitalist firms are those which manage to extract money from the web of production and exchange relations by all means possible including free-riding so as to survive and thrive regardless of the implications of such an existence for the society and economy in the long run. One cannot entirely dismiss such a perspective given that capitalist production relations when there is no external intervention tend to generate different forms of free-riding and undermine their own very existence (Polanyi 1944, Gray 1998, Sinn 2010). However, even then, it would be wise to contemplate about a constrained and regulated form of capitalism that would tame all capitalist actors so as to save the capitalist economy from self-destruction and the examination of formality on the basis of continuum-conceptualization would be a useful dimension of such an endeavor as it would allow us to see the cost of unprincipled profit for society at different points in the large gray zone that distinguishes free-riding from principled profit under the disguise of different types of informality.

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