Jasmine Mondolo, University of Padova

HOW DO INFORMAL INSTITUTIONS INFLUENCE INWARD FDI? A SYSTEMATIC REVIEW

June 2018

Marco Fanno Working Papers - 218

How do informal institutions influence inward FDI? A systematic review

Jasmine Mondolo

Department of Economics and Management of University of Padova

Via del Santo 33, Padova (PD), Italy

jasmine.mondolo@phd.unipd.it

In the last fifteen years, the literature on international economics and international business has been paying increasing attention to informal institutions and to how they affect a variety of economic variables, inward FDI in particular. The main aims of this work are: to shed more light on a puzzling, elusive concept -informal institutions- also by drawing comparisons with related constructs; to overview the main types of informal institution and their effects on FDI inflows; to conduct a meta-analysis to explore the heterogeneity across empirical studies focusing on the effects of informal institutions on FDI inflows. The main findings of the present work are as follows: according to most of the existing literature, informal institutions, such as trust, social networks and corruption, matter for the purpose of attracting FDI. The sign is significantly determined by the type of informal institution considered. In particular, social networks and factors typically facilitating or in favour of FDI - such as trust and a positive attitude to liberalism - have a significant and positive impact on inward FDI, and this especially holds when the host country is a developing economy.

Keywords: *informal institutions, FDI, systematic review*

JEL codes: A13, D02, F21

1. Introduction

In recent decades, pervasive processes of modernisation, globalisation and technological progress have made the world economies increasingly dynamic and interconnected, and have fostered the development of multinational firms. One of the main measures of these companies' activity is represented by foreign direct investments (FDI), defined by the OECD as investments in a foreign company in which the investor owns at least 10% of the ordinary shares, undertaken with the objective of establishing a "lasting interest" in the host country, a long-term relationship and a significant influence on the management of the firm (OECD, 2008).

In the last twenty years, research in international business and international economics has been paying increasing attention to the effects of FDI on the host economies. For instance, domestic firms can benefit from the knowledge transfer deriving from the creation of links with foreign companies, and come into contact with different and sometimes more advanced technologies and managerial practices (Blomström & Kokko, 1998). FDI also foster competition, which motivates firms to innovate and become more productive (Blomström & Kokko, 1998; Spencer, 2008). On the other hand, this increased competition may lead to the exit of local businesses and to their gradual replacement, so FDI can have negative crowding-out effects too (Amoroso & Miller, 2017). Another strand of the literature has focused instead on host countries' determinants of inward FDI. These include factors such as infrastructure, human capital, economic stability and production costs, which are associated with the location aspect of the OLI paradigm, [1]as well as market size, market growth, the economy's openness, and factor endowments, which are mainly investigated by the so-called New Trade Theory (Assunção et al., 2013). Another group of FDI determinants, the relevance of which has been highlighted since the late 1990s, reflects the quality and effectiveness of a country's institutions. Growing awareness of the relevance of FDI, of institutions, and of their interaction clearly emerges from the sizable number of studies that deal with these topics. To give an example, as at June 2017 Scopus has indexed 488 papers belonging to the subareas *Economics, Econometrics and Finance*, *Business, Management and Accounting* and *Social Sciences* published between 1994 (the first year available) and 2016, with titles, abstracts and/or keywords containing both the terms "FDI" and "institutions". Figure 1 shows the rising trend of the peer-reviewed works investigating these subjects.

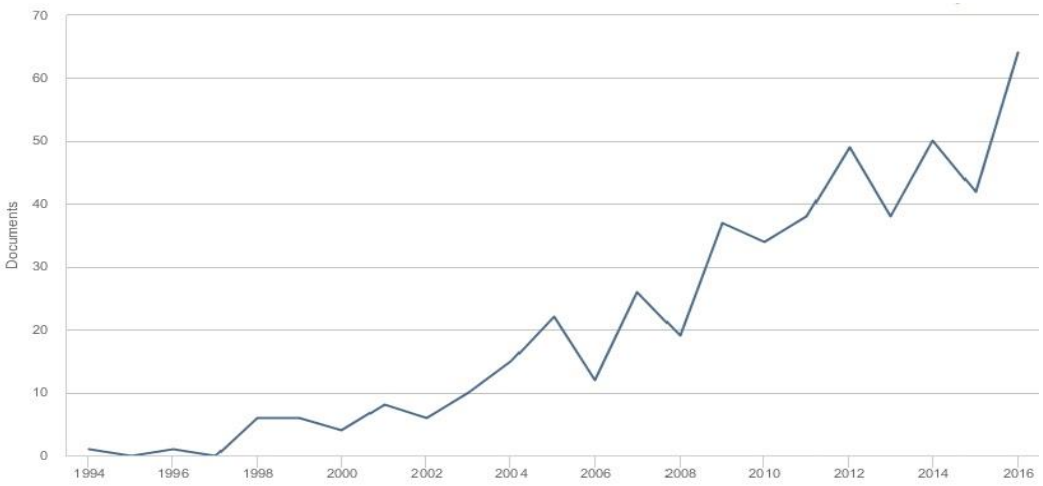
Most researchers analysing institutions have focused on the formal ones (e.g. property rights, rule of law, civil liberties and political stability), especially in the transition economies, which have changed dramatically over a short period of time. From this vast literature it emerged that formal institutions generally have a relevant role in affecting multinationals' investment decisions. In particular, higher levels of such institutional factors as political stability, democracy, and rule of law tend to attract FDI, while others, such as corruption and poor governance, typically deter it. The results of these single

[1] Dunning's eclectic paradigm (often referred to as the OLI paradigm) is one of the frameworks most often used to explain the factors that induce a firm to become a multinational. See Dunning (2000) for a review.

studies are supported by the more robust and general findings of Bailey (2016), who conducted a meta-analysis based on a sample of 97 primary studies on this issue.

In the meantime, informal institutions, which are typically not codified, and are harder to observe and measure, have been attracting more attention, especially since the beginning of the twenty-first century. In particular, several empirical works have found a significant effect of informal institutions on inward FDI, and on other relevant economic variables**.** This topic is still little explored, however, especially as concerns the relationship between FDI and formal institutions. The concept of informal institutions is also rather elusive and the literature adopts different interpretations and classifications. The available studies on informal institutions are consequently very heterogeneous and generally focus on just one or a few types, making it difficult for the reader to obtain a clear and satisfactory overview of this interesting but puzzling subject.

Figure 1. Number of articles concerning FDI and institutions indexed in Scopus between 1994 and 2016



Source: articles from the Scopus (Elsevier) database

In the light of these considerations, the three main purposes of this work are as follows:

(i) to shed more light on a puzzling, elusive concept - informal institutions - also by drawing comparisons with related constructs (section 2);
(ii) to overview the main types of informal institution and their effects on FDI inflows (section 2 and section 3);

(iii) to explore the heterogeneity across empirical studies on the effects of informal institutions on FDI inflows in order to see how, and to what extent, informal institutions affect a multinational firm's decision to invest in a given country. This is done by means of a simple meta-analysis, which - to the best of the author's knowledge – is the first to be conducted on this issue (sections from 3 to 6).

The remainder of the paper is organised as follows: section 2 contains an overview of the informal institutions framework, with a brief analysis of the main types forming the object of study; section 3 is devoted to a literature review of recent empirical studies on the influence of informal institutions on inward FDI; section 4 illustrates the empirical strategy and the data; section 5 presents and discusses the empirical findings; and section 6 concludes.

2. Informal institutions: an overview

This section provides a brief overview of informal institutions, mainly aiming to: shed light on the relationships and differences between formal and informal institutions; briefly describe what are typically considered as informal institutions, namely trust, social networks, corruption, but also culture and religion, which are often included in analyses on informal institutions, albeit with some peculiarities; underscore the main effects of these factors on inward FDI; reduce potential confusion on these topics by pointing out partial overlaps between similar concepts (such as informal institutions and social capital), and situations where the same item is included in different classifications. For instance, corruption is sometimes analysed from the point of view of governments monitoring and combatting the phenomenon and of the quality of governance, in which case it is included among the formal institutions. In addition, trust is considered an informal institution, as well as a major component of social capital, and sometimes as a cultural value too. This section also briefly presents the main datasets used by researchers to obtain their indices of informal institutions, and provides the interested reader with numerous useful references on these aspects.

2.1. Formal versus informal institutions

Efforts to empirically analyse the effects of institutions on social and economic variables are quite a recent phenomenon, but anthropologists, sociologists and political scientists have long been interested in the role of institutions in various aspects of social life (such as the structure of family and kinship, social classes and government systems), and their effects on the structure and behaviour of organisations (Scott, 2010).

One of the most important contributions on the development of a modern institutional theory came from Douglass North, who defines institutions as "*the humanly devised constraints that structure political, economic and social interactions"* (North, 1991, p. 97). Another valuable definition was provided more recently by Geoffrey M. Hodgson, who sees institutions as *"systems of established and*

embedded social rules that structure social interactions" (Hodgson, 2006, p.13). Theoretical support for the distinction between established and embedded social rules, which is closely connected to the distinction between formal and informal institutions, dates back to the beginning of the previous century. In his treatise *Folkways. A Study of the Sociological Importance of Usages, Manners, Customs, Mores, and Morals*, William Graham Sumner (considered one of the founders of sociology in the United States) distinguishes between *enacted* structures, which are deliberately created, and *cressive* structures, which slowly evolve more or less unplanned over lengthy periods of time (Sumner, 1906). More recently, W. Richard Scott defined institutions as "*social structures that have attained a high degree of resilience [and] are composed of cultural-cognitive, normative, and regulative elements that, together with associated activities and resources, provide stability and meaning to social life*". (Scott, 2008a, p.48). Both Hodgson's and Scott's definitions contain important references to the need to distinguish between two main categories, namely formal and informal institutions.

Formal institutions are founded on codified and explicit rules and standards that shape the interaction between members of society (North, 1990). They promote stability and regulation by providing authoritative behavioural guidelines, and by defining an established order within which individuals and firms operate (Scott, 2008a; Holmes et al., 2013). Formal institutions can be classified as regulatory (e.g. property rights, rule of law, and the judiciary system), political (e.g. political rights, political stability, democratic quality, and the presence of the military in politics), or economic (e.g. labour, business and financial freedoms [Kunčić, 2014]).

According to Zucker (1987), formal institutions are based on shared cognitive understandings and on their acceptance by the members of society. These elements can be involved in the realm of the so-called informal institutions. A well-known and widely-recognised definition of informal institutions was proposed by Helmke & Levitsky, who describe them as "*socially shared rules, usually unwritten, that are created, communicated and enforced outside officially sanctioned channels,* whereas formal institutions are *created, communicated and enforced through channels that are widely accepted as official"* (Helmke & Levitsky, 2006, p.5). As an example, North mentioned sanctions, taboos, customs, traditions, and codes of conduct. Helmke and Levitsky provide a definition that highlights some notable elements, which help differentiate between informal and formal institutions, namely the fact that they are typically unwritten and, although they are widely accepted and shared, they are not explicitly formalised. As we can infer from what Hodgson and Sumner said, informal institutions can be considered as embedded social guidelines and codes of conduct, rather than established normative rules and regulations, and they tend to be more persistent over time than the formal ones.

Formal and informal institutions are neither parallel sets of rules, nor consecutive phases, but they interact and mutually influence one another (Chakraborty et. al, 2015). Helmke & Levitsky (2006) classify informal institutions in four categories, based on the effectiveness/ineffectiveness of the corresponding formal institutions, and on the compatibility/incompatibility of their respective goals. To be more specific, when their goals are compatible and the formal institutions are effective, then the informal institutions are *complementary*, in the sense that they reinforce the formal rules. The operating routines and procedures that facilitate complex operations in the business and public sectors are an

example. In the event of effective formal institutions and conflicting goals, *accommodating* informal institutions will tend to modify or undermine the effectiveness of the formal rules without openly contradicting them. As an instance of this, Helmke & Levitsky (2006) mention the informal power-sharing arrangements made by the governing elite in Chile after the fall of Pinochet. When ineffective formal institutions are accompanied by contrasting goals, there will be *competing* informal institutions, which are incompatible with the formal rules (as in the case of corruption). Finally, *substitutive* informal institutions help societies to achieve outcomes that formal institutions were expected to produce, but failed to do so. An example lies in the informal loan networks that compensate for the formal court system when the latter is weak (see Chakraborty et al., 2015, for instance). Helmke & Levitsky (2006) also highlight the elements that should not be considered as informal institutions, although they share some of the latter's features, namely weak institutions (which may be formal or informal), informal behavioural regularities (that, to be considered informal institutions, must respond to an established rule or guideline, the violation of which generates some kind of external sanction), informal organisations (which, in North's view, play according to "the rules of the game"), and culture (which, according to Helmke and Levitksy, is based on shared values, while informal institutions are based on shared expectations; the two concepts are closely related and partially overlap, however, as we shall see in section 2.3).

2.2. Some relevant types of informal institution

Three widely-acknowledged types of informal institution that emerge from the literature are trust, social networks, and corruption.

Trust can be defined as the willingness to make oneself vulnerable to other people's actions, based on beliefs about their trustworthiness (Bohenet, 2008). Trust helps solve problems of opportunism and moral hazard, it reduces the uncertainty of complex transactions for firms, it promotes interaction and flexibility among partners, and it facilitates the flow of information with consequently lower costs (Beugelsdijk, 2005; Mèon & Sekkat, 2015).

An informal institution closely related to trust is represented by social networks. They consist of social ties developed through interpersonal and inter-organisational relationships between individuals and firms, respectively (Inkpen & Tsang, 2005). Social networks allow trust to become transitive and spread, then trust boosts cooperation, and cooperation fosters trust, thus triggering a virtuous circle (Putnam et al., 1993). An interesting case concerns the well-established social networks typical of China called *guanxi*, which can be defined as personal relationships based on trust and reciprocity through which individuals exchange favours (Wang, 2000). Another example of a well-established, particular social network widespread in the Western Balkans is the exchange of ideas and opinions that flows in the *mesni zajednicas*. According to Mohamed & Mihailović (2014), these are "*a traditional form of sub-municipal, community-based self-government (…) recognised as forums where citizens come together and discuss issues, decide on strategies and formulate proposals on issues of local significance"* (Mohamed & Mihailović, 2014, p.81). *Mesni zajednicas* play an important part in

promoting citizens' participation in decision-making at municipal level, and in service provision, partially compensating for inefficiencies of the formal institutions (Marćić, 2015). In Japan, there are mutual help networks such as the *youi* (consisting in the exchange of labour, typically among families), *moyai* (based on the redistribution of goods and services), and *tetsudai* (providing assistance with no expectation of reciprocity), which have traditionally been an important feature of Japanese society. Although the country changed profoundly during the last century, its tradition of mutual support persists, especially in farming villages (Onda, 2013).

Trust and social networks are also the object of a specific strand of literature focusing on a concept closely related to that of the informal institutions, social capital. According to Robert D. Putnam, social capital includes *"those features of social organisation, such as networks of individuals or households, and the associated norms and values that create externalities for the community as a whole"* (Putnam et al., 1993, p. 167). The literature on social capital typically also considers associative activity, a concept strongly related to that of social networks and referring to people's participation in civic groups and non-profit organisations. Knack & Keefer (1997) produced a list that includes organisations dealing with social welfare services, religion, education, art and music, politics, human rights, environment protection, sports or recreation, youth work, health, animal rights, women's rights and local community action, professional associations, and trade unions. In their famous study on the Italian regions, *Make Democracy Work*, Putnam et al. (1993) show that the crucial factor in explaining the differences in governments' effectiveness and economic performance across Italy lay in regional disparities relating to the traditions of civic engagement and to the structure of the civic networks (which are based on associative activities). In particular, they found a positive link between high levels of social capital and high levels of government effectiveness and economic development.

Trust and social networks are usually considered as complementary or substitutive informal institutions, whereas corruption, as Helmke & Levitsky pointed out (2006), can be seen as a typical competing informal institution. Corruption consists in illegal informal exchanges involving the misuse of public power for private benefit. It is a widespread phenomenon with ancient origins, as documented in Noonan's work *Bribes* (Noonan, 1984). In the last two decades, a vast amount of empirical literature analysing the impact of corruption on economic growth and other economic and social variables has highlighted two main, opposite effects. According to the mainstream view, corruption damages the economy because it raises transaction costs for foreign investors (Bardhan, 1997), carrying the risk of a loss of reputation and brand goodwill (Zhao et al., 2003), and causing inefficiencies and market distortions by giving corrupt firms preferential access to lucrative markets (Habib & Zurawicki, 2002). On the other hand, corruption may help investors to circumvent long and inefficient bureaucratic procedures (Huntington, 1968), accelerate decision-making, and enable businesses to avoid onerous government regulations (Lui, 1985). Sometimes corruption may also help supplement low wages, enable governments to reduce taxes and partially compensate for weak regulatory systems, especially in developing countries (Tullock, 1996; Houston, 2007). As a final consideration on corruption, to avoid possible misunderstandings, it is worth adding that some authors use indicators that refer not to the perception of corruption, but to the efficacy with which it is controlled and prevented by the

political authorities, as captured for instance by the Worldwide Governance Indicator "Control of corruption". In such cases, corruption is typically included among the formal institutions.

Beyond trust, social networks and corruption, some other elements are sometimes identified as informal institutions. For instance, Harriss-White (2010) suggests that the informal labour market, or so-called shadow economy, can also be considered as an informal institution, and more specifically as a conflict management institution. Indeed, it represents a social welfare element in the economies where a more formal welfare system is lacking or very weak. A country's informal labour market may have some effect on its inward FDI. In this respect, Lee & Park (2013) suggest that a large informal labour market can influence a country's appeal for FDI by weakening a relevant formal institution, namely, the protection of intellectual property rights. Kunčić & Jaklić (2014) employ indicators of society's positive and negative attitudes to liberalism to capture informal institutions, while Holmes et al. (2013) investigate informal institutions in the form of the cultural dimensions of collectivism and future orientation. More information about their contributions can be found in the literature review (section 3).

2.3. Culture and religion

Despite some peculiarities, culture and religion are two complex constructs closely related to informal institutions. Guiso, Sapienza & Zingales (2006, p.23) identify culture with "*those customary beliefs and values that ethnic, religious, and social groups transmit fairly unchanged from generation to generation*." One of the most prominent contributors to the modern literature on culture is Geert Hofstede, who defines culture as "*the collective programming of the mind which distinguishes the members of one human group from another*" (Hofstede, 1984, p. 21). He suggests that the most important differences between cultures can be captured by the extent to which they diverge in terms of certain cultural values, or domains, i.e. uncertainty avoidance, power distance, individualism vs collectivism, and masculinity vs femininity. Uncertainty avoidance indicates to what extent a culture shapes its members to feel more or less uncomfortable in unstructured and ambiguous situations. Power distance is the degree to which the less powerful members of organisations and institutions accept that power is unequally distributed, or even expect it to be so. Individualism (versus collectivism) involves the extent to which individuals are more or less tightly integrated in groups. Masculinity (versus femininity) refers to the role distribution between the genders; in particular, more masculine societies view roles as more rigidly gender-dependent, while there is more freedom concerning role selection, regardless of gender, in more feminine societies (Hofstede, 2001). Despite some criticism (see Schwartz, 1994, and McSweeney, 2002, for instance), Hofstede's notion of culture is one of the most widely used in many research fields (Kaasa, 2015). More recently, Tabellini (2010) and Williamson & Kerekes (2011) identified four other cultural domains, namely trust, respect, individual self-determination, and obedience. Another cultural trait mentioned in the literature concerns the relevance of family ties in society. Alesina & Giuliano (2010) argue that societies with strong family ties experience lower levels of generalised trust and civic sense, and tend to have more home-based production (done largely by women, young adults, and older people). Like informal institutions, cultural traits tend to change more slowly than formal institutions (Alesina & Giuliano, 2010,

Fernández & Fogli, 2009, and Giavazzi, Petkov & Schiantarelli, 2014), and they interact with formal institutions (Alesina & Giuliano, 2015 and Alesina et al., 2015).

Due to the close relationship and overlaps between informal institutions and culture, to the point that the latter can be considered an important reflection of a country's informal institutions (North, 1990; Peng et al., 2008), the empirical part also includes some cultural values among the variables capturing informal institutions.

Religion is another construct having strong links with informal institutions, and especially with culture (for instance, Barro & McClerry [2003] define religion as an important dimension of culture). Ever since the publication of Max Weber's seminal work, *The Protestant Ethic and the Spirit of Capitalism* (Weber et al., 2002 [1905]), numerous studies have investigated the effects of individuals' religious affiliation and/or religiosity (a more elusive concept that captures the strength of an individual's belief in God and participation in religious activities) in a given country on a number of economic variables. These include entrepreneurship (Audretsch et al., 2007; Carswell & Rolland, 2007; Wiseman & Young, 2014; Nunziata & Rocco, 2016), productivity (Islam, 2008; Grafton et al., 2002; Gorodnichenko & Roland, 2010; Kaasa, 2015), income (Iannaccone, 1998, Barro & McCleary, 2003, Bettendorf & Dijkgraaf, 2010, Kortt et. al., 2012; Sinnewe et al., 2016), and economic attitudes (Lal, 2001; Minarik, 2014).

2.4. Informal institutions and inward FDI

Trust, social networks and corruption are likely to have an impact on inward FDI. A trust-based business environment is expected to favour inward FDI, since it reduces the probability of opportunistic behaviour in the local market (a key concern for foreign investors), it facilitates the development of cooperative business relationships with local stakeholders, and it lowers monitoring costs. Like trust, sound social networks should foster FDI because they give foreign investors the opportunity to establish contacts in organisations with various backgrounds and professions, and allow them to develop durable professional relationships (Zhao & Kim, 2011). For instance, *guanxi* support foreign investors as well as Chinese people. Indeed, they complement official law by clarifying legal ambiguities and providing access to legal contract enforcement and dispute settlement mechanisms. They also secure potentially highly-profitable business opportunities by compensating for the high investment risks involved (Wang, 2000). As for corruption, its influence on decisions made by multinational firms is ambiguous for the reasons illustrated in section 2.2.

Religion and culture can influence inward FDI to some extent too. In particular, the empirical study conducted by Hahn & Bunyaratavej (2010) suggests that a higher level of uncertainty avoidance and a tendency for masculinity in a given country are negatively associated with its appeal to FDI, while a greater power distance and a tendency for individualism favour FDI inflows. As mentioned in section 2.3, there is a vast body of literature on religion and several economic variables, but few empirical studies concern the influence of religion on FDI. In addition, almost all of them (e.g. Hergueux, 2011) use gravitational models in which the key independent variable is not the host country's religiosity or religious affiliation(s), but the "distance" between those of the host and home countries, and the

dependent variable is bilateral FDI. Regarding total inward FDI, Sathe & Handley-Schachler (2006) examine the effect on FDI inflows of several factors, including religion, in different Indian regions, finding that religious affiliation is not statistically significant after controlling for the degree of urbanisation.

2.5. The main datasets used to construct indicators of informal institutions

The increasing attention paid to the role of informal institutions in societies, and to how they interact with formal institutions, has been supported by a greater availability of datasets, typically based on surveys administered to households or firms, that provide, or enable researchers to obtain measurable and comparable indicators of these institutions.

Several studies derive their indices of informal institutions -including culture and religion- from data contained in the World Value Survey (WVS), the European Value Survey (EVS) and/or the European Social Survey (ESS). These extensive datasets are based on large-scale, cross-national and longitudinal surveys designed to empirically investigate the moral and social values and beliefs of the people living in the countries being surveyed. The WVS currently comprises six waves (1981-1984, 1990-1994, 1995-1998, 1999-2004, 2005-2009 and 2010-2014) covering nearly a hundred countries in all; the latest one available in 2017 concerns 46 countries. The EVS and ESS focus on European countries and, to date (2017), the EVS has released four waves (1981, 1990, 1999 and 2008) that have involved increasing numbers of countries (reaching 46 in the latest wave), while the ESS (which is updated biennially and covers fewer countries) has published seven waves (2002, 2004, 2006, 2008, 2010, 2012 and 2014). One question posed by all three surveys is whether the respondent thinks that most people can be trusted. Their answers are often used by sociologists, sometimes combined with other related queries, to build a trust-based indicator. The core concept underlying this index relates to interpersonal trust, generally meaning trust in physically proximal individuals, such as neighbours or people living in the same town. Some researchers, such as Baliamoune-Lutz (2011) and Ahmad & Hall (2017), believe that a trust indicator should reflect trust in strangers too, and that an indicator based on the WVS, EVS or ESS suffers from limited data availability across years, so they have employed alternative measures of trust. One of these is the contract-intensive money (CIM) indicator, which should reflect the trust placed by individuals entering into monetary transactions in a large number of individuals not necessarily known to them, as well as their confidence in being repaid (Baliamoune-Lutz, 2011).

Another interesting data source is the Global Competitiveness Report on the economic and social performance of more than a hundred countries, released annually by the World Economic Forum. For each country scrutinised, this report provides a series of institutional indicators, including some related to firms' values, informal practices and relationships, based on extensive interviews with business executives. Seyoum (2011), for instance (whose paper is included in the literature review in section 3), resorts to these indices to build an indicator of informal institutions.

Finally, two widely-used measures of corruption, covering more than 150 countries, are the Corruption Perception Index (CPI), and the corruption index contained in the International Country Risk Guide (ICRG). The corruption index in the ICRG assesses corruption within political systems and is one of the twelve components of the political risk rating released by the PRS Group on a monthly or annual basis (PRS Group, 2012). The CPI has been issued annually since 1995 by Transparency International, the largest not-for-profit organisation committed to fighting corruption. Another index capturing perceptions about corruption is the "Control of Corruption" Worldwide Governance Indicator, issued annually by the World Bank and covering numerous countries. As mentioned in section 2.3, the Control of Corruption index is typically included among the indicators of formal institutions since it can be interpreted as an indication of how effectively governments control illegal practices.

3. A review of recent empirical studies

Interest in the relationship between informal institutions and certain important economic variables, such as inward FDI, has been rapidly growing in the last two decades. This section reviews twenty recent empirical papers (selected as briefly explained in section 4) on how a host country's informal institutions affect its FDI inflows. To provide a compact but useful overview of the selected articles, and make it easier to compare them, Table 1 condenses the following information for each paper: year of publication, author(s), the FDI-related dependent variable, types of informal institution considered, types of formal institution (if modelled), and main conclusions. A more detailed version of Table 1, that includes the name of the journal that published the study, the proxies used to measure the informal institutions, further information on the institutional variables, and the time frame in question is available on request (as is another similar table, for readers interested in delving further into these topics, which reviews twenty recent empirical papers on the effects of informal institutions, including culture and religion, on a variety of interesting economic outcomes other than inward FDI, such as income, entrepreneurship and productivity).

A look at Table 1 prompts a few considerations. First, the authors use quite different measures of the amount of inward FDI (see column 2), not just the more often-used FDI inflows, but also the number of FDI projects, for instance (e.g. Hahn & Bunyaratavej, 2010), and the probability of FDI being made in a given country (e.g. Smarzynska & Wei, 2000) or region (e.g. Choe & Lee, 2016). The articles investigate different factors that might be seen as the types of informal institution described in section 2, namely trust, social networks, corruption, the informal labour market and cultural values (column 3).

Table 1. Empirical papers investigating the effects of informal institutions on a country's attraction of FDI

1. Author(s) and year of publication*	2. Dependent variable	3.Type(s) of informal institution	4. Type(s) of formal institution (if modelled)	5. Sample of host countries	6. Main conclusions
Wang (2000)	FDI inflows	SOC_NT	POL (CORR)	22 developed and 44 developing countries	Corruption is probably not a major deterrent against inward FDI because there are informal institutions (such as *guanxi* in China) that compensate for the shortcomings of the legal system.
Smarzynska & Wei (2000)	prob. of a FDI in a given country	CORR	NOT_MOD	22 transition economies	A higher level of corruption in a host country is associated with a lower probability of FDI.
Mudambi & Navarra (2003)*	number of FDI projects	OTHER_V	POL_INST	Italian regions	A move towards a centre-right political orientation and an increase in Putnam's index of civic institutions have a positive, significant effect on inward FDI, whereas an increment in the concentration of political power has a very significant negative influence.
Bhardwaj et al. (2007)	WIR's FDI Index	TR, CULT	POL_INST	43 heterogeneous countries	Uncertainty avoidance discourages inward FDI and weakens the positive effect of trust.
Li & Filer (2007)	FDI inflows and % of inward FDI out of total FI	TR	LEG_INST, POL_INST	44 heterogeneous countries	Good governance increases FDI inflows, but it is also important to consider indirect foreign investment. In particular, the latter are preferred to FDI in countries with a weak governance environment, since they can be better protected by private means.
Hahn & Bunyaratavej (2010)	number of FDI projects in the service sector	CULT	POL_INST	The host countries of greenfield FDI in the service sector from the UK, the US, Germany and Japan	Host countries with lower levels of uncertainty avoidance and higher levels of individualism and power distance are able to attract more FDI in the service sector.
Seyoum (2011)	FDI inflows	SOC_NT	LEG_INST	119 heterogeneous countries	There is a positive relationship between informal institutions and inward FDI, which is partially mediated by formal institutions.
Zhao & Zim (2011)	FDI inflows /GDP	TR, SOC_NT	LEG_INST, POL_INST	76 heterogeneous countries	Trust and associative activity are relevant determinants of FDI inflows and their effects are further strengthened by high regulatory quality.
Mudambi et al. (2013)	FDI inflows	CORR	EC_INST	55 developing countries	FDI are negatively associated with corruption, which tends to be higher where there is little protection for property rights and scarce trade freedom.
Alemu (2012)	FDI inflows	CORR	NOT_MOD	16 Asian countries	A greater freedom from corruption is associated with a significant increase in inward FDI.
Wu et al. (2012)	FDI inflows; % of inward FDI out of total FI	SOC_NT	LEG_INST, POL_INST	45 heterogeneous countries	Family-based and relational-based countries attract the highest amounts of FDI relative to the total amount of foreign investments.
Holmes et al. (2013)	FDI inflows	CULT	LEG_INST, EC_INT, POL_INST	50 heterogeneous countries	Countries' informal institutions shape their formal institutions, which in turn affect their level of inward FDI in various ways.

Lee & Park (2013)	FDI inflows	INF_LM	LEG_INST	11 Asian countries	Stronger intellectual property rights (IPR) protection attracts more FDI in countries with small informal economies, but not in countries with large informal economies.
Helmy (2013)	FDI inflows	CORR	LEG_INST, EC_INST	21 MENA countries	In MENA countries corruption is positively, significantly associated with inward FDI.
Sekkat (2014)	FDI inflows	SOC_NT	LEG_INST	13 Arabic countries	Since the quality of formal institutions matters only for non-Arab countries, intra-Arab investments are likely to be driven by social networks and similar beliefs.
Kunčić & Jaklić (2014)	bilateral and total FDI stocks	CULT	LEG_INST, EC_INT, POL_INST	34 OECD countries	Not only the host country's political and legal institutions, but also its liberal public opinion have a positive effect on inward FDI.
Quazi (2014)	FDI inflows	CORR	POL_INST, EC_INST	16 Asiatic countries	Corruption has a significant, negative impact on inward FDI in East Asia and South Asia.
Mèon & Sekkat (2015)	FDI inflows /GDP	TR	LEG_INST	46 advanced and developing countries	Formal and informal institutions are substitutes when it comes to attracting FDI.
Choe & Lee (2016)*	probability of FDI in a given region	TR, SOC_NT	NOT_MOD	15 South Korean regions	"Trust and Norms" is a relevant locational factor for foreign investors in South Korea, while the "Social networks" factor is typically not statistically significant.
Jalil et al. (2016)	FDI inflows	CORR	NOT_MOD	43 developing countries	Generally, corruption has a positive impact on FDI inflows in the case of Asia and Africa, while it has a negative impact in the case of Latin America.
Paniagua et al. (2017)**	value and number of greenfield FDI	SOC_NT	POL_INST	87 heterogeneous countries	Online social networks' activities stimulate greenfield FDI.
Saleh et al. (2017)*	FDI inflows in the Vietnamese service industry	CULT	POL_INST	Vietnam (with focus on Ho Chi Minh City's service sector)	Not only market-seeking motives and government policies, but also culture have a strong impact on FDI location decisions related to the Vietnamese service industries.

Notes: the year in brackets refers to the year of the study's publication in a journal, with the exception of the two working papers (Smarzynska & Wei, 2000 and Lee & Park, 2013).

LEGEND: SOC_NT: social networks; TR: trust; CULT: cultural factors, namely: individualism, collectivism, power distance, uncertainty avoidance, future orientation, positive and negative attitudes to liberalism and (in Mudambi & Navarra, 2003) Putnam's index of civil institutions; CORR: corruption; INF_LM: informal labour market; LEG_INST: legal institutions (e.g. property rights); POL_INST: political institutions (e.g. political rights, government policies); EC_INST: economic institutions (e.g. indices of economic freedoms); NOT_MOD: not modelled.

Since most of the empirical papers dealing with FDI and religiosity employ gravitational models (as mentioned in section 2), none of the studies considered here include religious indicators. Several authors build indicators of informal institutions from the WVS, EVS and/or ESS, with the aid of data reduction techniques. A particular case concerns Wang (2000), and Sekkat (2014), who only include formal institutions in their empirical model, inferring the relevance of informal institutions (which may attenuate the effectiveness of the formal institutions, or compensate for their ineffectiveness) from the lack of significance of the institutional factors (typically affecting FDI) that are modelled. Column 4 refers to the inclusion of indicators of formal institutions. In particular, two studies (Holmes et al, 2013; Kunčić & Jaklić, 2014) adopt comprehensive indices of formal institutions derived with the aid of data reduction techniques from a broad set of institutional variables contained in different datasets. Column 5 provides some basic information on the sample of host countries considered in each study. The samples labelled as heterogeneous contain a mix of advanced, transition and developing economies[2] from various geographical areas. The three papers marked with an asterisk in Table 1 conduct their analysis either on different regions of the same country (Mudambi & Navarra, 2003; Choe & Lee, 2016), or on a very specific area and sector (Saleh et al., 2017), so they are not used as primary studies in the meta-analysis. The study by Paniagua et al. (2017), marked with two asterisks in Table 1, represents an interesting but rather peculiar case: it investigates the influence of online social networks, such as Facebook and Twitter, on FDI. Although they could be considered as an ultimate version of the concept of social networks illustrated in section 2, they are not related to a particular physical place, such as the destination country of FDI, because they could be joined by individuals and firms from all over the world. On the other hand, this paper also deals with multinational firms' ability to join informal networks, which could be an opportunity for both the investor company and the local firms and policy-makers of the host country to get to know each other better, reduce scepticism and prejudices, and develop contacts. For these reasons, this paper was included in the meta-analysis but, as a sensitivity analysis, the model was also estimated without it (see section 5). Finally, column 6 briefly summarises the main conclusions, highlighting the effects of the informal institution(s) scrutinized on inward FDI and, in some cases, the interplay between formal and informal institutions as well. From a preliminary analysis of these studies, it can be observed, for instance, that: informal institutions can act as substitutes or complements of formal institutions, or they can mediate the effect of the latter on FDI (e.g. Wang, 2000; Seyoum, 2011; Holmes et al., 2013); corruption typically discourages inward FDI, but can also favour it, especially in certain host countries (e.g. Helmy, 2013; Jalil et al., 2016); trust and social networks typically encourage inward FDI (e.g. Seyoum, 2011; Zhao & Kim, 2011). More rigorous and general conclusions can be drawn from the meta-analysis (see sections from 4 to 6).

[2] I adopted the United Nations classification of countries to identify developing economies. They represent quite a heterogeneous group, including both fast-growing economies such as China, India and Vietnam, and poor emerging economies like those of Sub-Saharan Africa. While the UN classification also labels the Eastern European countries that have joined the EU as advanced economies, I included them in "transition economies" group, together with the Western Balkan countries and the CIS countries.

4. Data and research method

After shedding more light on the informal institutions construct, the second main aim of this work is to employ the available studies on how informal institutions affect inward FDI to empirically test whether and to what extent these factors attract and/or discourage foreign investors. For this purpose, twenty-two recent empirical studies dealing with this issue (see section 3 for a qualitative review) were selected by means of a procedure briefly explained later. These articles differ considerably in terms of their main findings, and also in important aspects, such as the type(s) of informal institution considered, the estimation methods used, and the number of observations. This heterogeneity was therefore explored statistically by conducting a simple meta-analysis.

A meta-analysis can be defined as a quantitative review of empirical studies on the same issue, the main aim of which is to empirically assess their findings, to identify the main drivers of the latter (Ghisetti & Pontoni, 2015), and to summarise and explain the often considerable differences that emerge between the reported results (Stanley et al., 2013). Such a combined statistical analysis helps overcome certain limitations typical of single studies (such as measurement inaccuracies, limited reliability, restricted research range, small sample size and low statistical power), and enables more general and robust conclusions to be drawn (Borenstein et al., 2011). Stanley and Jarrell, two prominent experts on meta-analytic techniques, claim that meta-analysis offers *"a framework in which to organise and interpret exact and inexact replications, to review more objectively the literature and explain its disparities, and to engage in the self-analysis of investigating the socioeconomic phenomenon of social scientific research itself"* (Stanley & Jarrell, 2005, p. 306). Meta-analysis has traditionally been used for research in the medical sciences and education, but has become more and more popular in the social sciences too, including international economics. Some authors have recently used meta-analytical models to examine the FDI determinants (e.g. Bailey, 2016; Tokunaga & Iwasaki, 2017) and FDI effects (e.g. Havranek & Irsova, 2011; Iwasaki & Tokunaga, 2016; Demena & van Bergeijk, 2017) identified by a large number of researchers.

The basic meta-regression analysis is based on the following equation:

$$b_j = \propto + \sum_{k=1}^{K} \beta_k Z_{jk} + e_j \qquad j = 1,2,3 \ldots . N \qquad (1)$$

where:

- b_j is the estimate of the meta-dependent variable corresponding to the j^{th} regression model of a selected study, capturing the so-called effect size, namely the magnitude of the association between the variables of interest (i.e. FDI and informal institutions in this work);

- $\propto$ is the "true" value of the parameter of interest;

- Z_{jk} is the set of the meta-independent variables (usually called moderators), which reflect relevant characteristics of an empirical study and drive the magnitude and the sign of the effect size;

- β_k are the coefficients of the moderators;

- e_j is the meta-regression disturbance term.

The articles included in the meta-analysis are typically known as primary studies, and the corresponding regression models provide the observations of the meta-regressions. Primary studies are selected by exploring the existing literature on a given topic (e.g. the relationship between economic growth and FDI) and applying a set of identification criteria to obtain a sample. The meta-dependent variable is often an OLS-estimated regression coefficient drawn from each original regression model; although the OLS estimates are unbiased and consistent, some meta-analysts prefer to focus on the t-statistics reported by the primary studies because the meta-regression errors are very likely to be heteroskedastic due to the marked variability of the datasets, sample sizes and regressors in the primary literature. The t-statistic is a dimensionless, standardised measure of the critical parameter of interest (Stanley & Jarrell, 2005). When a selected study does not allow for the meta-dependent variable to be estimated in these ways - when the limited availability of empirical studies on a given topic makes it necessary to include qualitative studies, for instance – then a meta logit or probit model can be used (Stanley & Doucouliagos, 2012). To give an example, a binary variable can be created that takes a value of 1 if the economic phenomenon being investigated is significant, and 0 otherwise (Ghisetti & Pontoni, 2015). The moderators are often dichotomous variables and capture important characteristics of a study, such as the use of a cross-section or of a panel data model, the use of a single equation or of simultaneous systems, the inclusion or exclusion of certain relevant variables, the sample size, and the time frame.

In this work, a meta-probit model was chosen because the sample size is limited, the FDI-related dependent variables are quite heterogeneous, and it is impossible to obtain t-statistics from a number of the studies selected. The probit functional form also has the advantage of being bounded between 0 and 1, implying that the predicted values cannot lie beyond the probability range and entail homoscedastic errors (Ghisetti & Pontoni, 2015). The observations are eighty-one relevant regression models (models that do not include informal institutions among the regressors, or that provide no further information for the purpose of the meta-analysis are excluded) corresponding to the empirical papers reviewed in section 3, with the exception of Mudambi & Navarra (2003), Choe & Lee (2016) and Saleh et al. (2017), as mentioned in section 3, and of Li & Filer (2007), as explained below. These articles were collected by analysing the results provided by Scopus and the Social Science Research Network (SSRN) for combinations of the keyword “FDI” with keywords relating to informal institutions, i.e. “informal institutions”, “informal”, “social capital”, “corruption”, “culture”, “social networks”, “business networks”, “beliefs”, “religion”, “religious”, “religiosity” (last access: 21.03.2018). Working papers were sought in the above-mentioned sources and also in the Research Papers in Economics (RePEc) database, and the lists of working papers issued by the World Bank and the International Monetary Fund. Among the inclusion criteria adopted, the selected studies have to include an econometric model in which the factors briefly described in section 2 are considered as informal

institutions, and employ some measures of inward FDI as dependent variables. Papers that use gravitational models were excluded, with the exception of the one by Kunčić & Jaklić (2014), since the authors use not the institutional distance between pairs of countries, but the absolute value of these institutional factors measured in the economies sampled, as the independent variable related to informal institutions. This enables the authors to draw conclusions on the effect on inward FDI of an interesting, little-explored type of informal institution, namely positive and negative attitudes to liberalism. In addition, since one of the shortcomings of meta-analyses is the risk of within-study dependence, the reciprocal citations of the selected studies were checked. While eight out of the nine[3]articles involved in these reciprocal citations did not raise serious concerns about their inter-dependence, the study conducted by Li and Filer (2007) was dropped because a more recent one (Wu et al., 2012), which includes Li among the authors, is partly based on the results of the earlier work. In addition, two regression models in the Wu et al. (2012) paper were excluded because their dependent variable is not the amount of inward FDI in absolute terms, but the percentage of FDI out of the total amount of foreign investment. There are far more empirical studies on the impact of corruption on FDI than studies dealing with other types of informal institution. I consequently used a random sample of articles corresponding to the combination of keywords "FDI" and "corruption", and fulfilling the other above-mentioned criteria, as suggested by Stanley & Doucouliagos (2012) in the event of large amounts of results being available. I also considered two unpublished papers; their limited number was due not only to the paucity of working papers on this topic, but also to the difficulty of gaining access to some of them. Generally speaking, including unpublished papers in the sample of primary studies should mitigate the risk of encountering one of the main forms of publication bias, a broad term encompassing all possible biases of a study (including those relating to its size, direction and statistical significance, but also to its availability and accessibility) according to which studies with significant or expected findings are more likely to be published (McShane et al., 2016).

I identified and used two alternative dichotomous meta-dependent variables:

-SIGNIF: which takes a value of 1 if the effect of at least one of the informal institutions included in a regression model is significant, and 0 otherwise;

-SIGN_POS: which takes a value of 1 if informal institutions significantly attract inward FDI, and 0 otherwise. [4]

[3] Smarzynska & Wei (2000) is cited by Mudambi et al. (2013), by Helmy (2013) and by Quazi (2014); Li & Filer (2007) is cited by Seyoum (2012) and by Wu et al. (2012); Bhardwaj (2007) is cited by Wu et al. (2012) and by Zhao & Kim (2011); and Seyoum is cited by Wu et al. (2012) and by Helmy (2013).

[4] As mentioned in the note to Table A1, since the main aim of the empirical analysis is to see whether some types of informal institution can increase a country's attractiveness in terms of inward FDI, the variable NEG_SIG was not used as a dependent variable as well. As expected, the main results of the probit regressions with NEG_SIG are that VALPOS_REL is significantly negative, while VAL_NEG is significantly positive.

The following moderators were selected to capture a number of relevant characteristics of the models used in the primary studies[5]:

- IMF5: the five-year impact factor of the journal publishing the study, used as proxy for the relevance of the journal in question;

- FWCI: the field weight citation impact provided by Scopus, which shows how well cited an article by comparison with similar articles; it takes a value of 1 if this index is higher than 1;

- several macro-categories of informal institutions, namely: relationships and factors typically facilitating FDI (VALPOS_REL), which include trust, social networks, individualism, collectivism, future orientation, power distance and a positive attitude to liberalism; illegal practices (ILL), including corruption and the informal labour market; factors typically interfering with FDI (VAL_NEG), meaning uncertainty avoidance and a negative attitude to liberalism. These indicators take a value of 1 if the corresponding type of institution is modelled in the regression model in question;

-FORM: the inclusion or exclusion of indicators of formal institutions;

-PREV_DEV: the prevalence of developing economies (at least 60% of the countries) in the sample[6]

-PAN: the use of a panel data model rather than a cross-section;

-NOT_LIN: the use or non-use of a non-linear regression model as an estimation technique (i.e. probit and logit models, or panel count data models);

-NUM_OBS: the number of observations.

With the exception of those referring to the journal's impact factor and the number of observations, all the above-listed moderators are dichotomous variables, which take a value of 1 when the related characteristic is displayed in a regression model. A glance at the values taken by each of the above-mentioned variables in all the regression models prompts a few preliminary considerations. Due to space limitations, the table condensing this information is provided in the Appendix (Table A1). Since about 79% of the whole set of regression models found informal institutions significant, informal institutions presumably have some impact on inward FDI according to most of the empirical literature reviewed. Almost all the primary regression models include developing economies among the host

[5] Other possible regressors - namely the "age" of the paper (given by the time elapsing between the current year, 2017, and the year when it was published), the use of a dependent variable other than FDI inflows, and the number of regressors - were not included because they were never significant or they correlated closely with other variables. In particular, the "age" of a study is partly captured by the FWCI. Moreover, positive values and relationships are both captured by a single regressor, VALPOS_REL, because they were strongly correlated.

[6] This dummy variable was included, rather than a dummy value of 1, to allow for some developing economies being included in the sample, since the latter would take a value of 1 in more than 90% of the observations, so it would be dropped from the model.

countries, and about 59% of them are based on samples that consist mainly of developing countries. This suggests that the issue of the relevance of informal institutions to inward FDI may be of particular interest for this type of economy. The Appendix contains two other tables that provide the summary statistics for these variables (Table A2), and the matrix of the pairwise correlations between the regressors (Table A3). Judging from Table A3, three pairwise correlations are remarkably high (more than 70%), namely: the correlation between ILL and VALPOS_REL, which equals -1, since the studies included in the meta-analysis focus either on corruption and related activities, or on social networks and factors facilitating or in favour of FDI; the correlation between PREV_DEV and ILL, which equals 77.53; and the correlation between PREV_DEV and VALPOS_REL, which amounts to -77.53. These last two values are related to the fact that most of the authors in the sample who focus on developing economies are interested in investigating the effect of corruption on inward FDI. This is probably because corruption is often widespread in such countries, but also because it could either discourage or attract FDI, especially when it can partially compensate for weak formal institutions, as may happen in these countries.

A more rigorous analysis of the factors driving these results can be done by estimating the empirical model, which is based on the following equations:

$$SIGNIF = \alpha + \beta_1 IF5 + \beta_2 VAL\_NEG + \beta_3 VALPOS\_REL + \beta_4 FORM + \beta_5 TRANS + \beta_6 PAN + \\ + \beta_7 NOT\_LIN + \beta_8 NUM\_OBS + \in \quad (2)$$

$$SIGN\_POS = \alpha + \beta_1 IF5 + \beta_2 VAL\_NEG + \beta_3 VALPOS\_REL + \beta_4 FORM + \beta_5 TRANS + \beta_6 PAN + \\ + \beta_7 NOT\_LIN + \beta_8 NUM\_OBS + \in \quad (3)$$

Due to the dichotomous nature of the three dependent variables, equations 2 and 3 are estimated with probit models that explain whether the presence of each moderator raises or lowers the probability of each dependent variable amounting to 1. To account for heteroscedasticity, all the standard errors are clustered by article.

5. Empirical results and discussion

The results of the estimation of the model introduced in section 4 are illustrated in Table 2.

Column 1 and column 2 refer to the main model specification, in which all the observations and all the regressors are used. Judging from column 1, the probability of informal institutions significantly affecting (either encouraging or discouraging) inward FDI – in other words, the probability of SIGNIF equalling 1- is higher when informal institutions take the form of social networks, rather than illegal activities (taken as the default category) and factors typically not favouring FDI. On the other hand, this probability is lower when formal institutions are modelled, because part of the overall effect of

institutions on inward FDI derives from the formal ones. Moreover, since the variable PAN is not statistically significant (neither in column 1, nor in any of the other columns in Table 2), the significance of informal institutions is not driven by the choice of a panel data model rather than a cross-section. This is probably due partly to the nature of informal institutions, which tend to change very slowly over time. A cross-section may therefore be appropriate as well for modelling the relationship between FDI and informal institutions. The variable NOT_LIN, and hence the observations that employ non-linear regressions, are automatically dropped, however, due to the limited number of cases in which they take a value of 1. In addition, while the journals' five-year impact factor correlates negatively with SIGNIF (an element that could imply the presence of some publication bias), the more a study is important, in terms of the number of its citations, the higher the likelihood of it finding informal institutions significant. This suggests that researchers should take both formal and informal institutions into account when analysing the effect of institutions on FDI or other economic variables. Finally, it is worth noting that the dummy variable referring to the prevalence of developing countries in the sample is highly significant. As suggested by the preliminary analysis in Table A3, it consequently seems that informal institutions can have an important role in influencing inward FDI, especially in these economies.

The sign of the effect being investigated is analysed in column 2, in which the dependent variable is POS_SIG. Judging from the estimates, the sign is significantly influenced by the type of informal institution considered. More specifically, by comparison with illegal activities, factors such as trust or a positive attitude to liberalism, and social networks raise the probability of informal institutions attracting FDI, while factors typically not facilitating FDI (e.g. illiberal public opinion and uncertainty avoidance) do not. This result further supports the positive relationship between these two variables, as typically emerges from the theoretical and empirical literature. On the other hand, uncertainty avoidance and a negative attitude to liberalism are associated, as expected, with a higher probability of the sign being negative. As in column 1, the variable PREV_DEV is still highly significant. This may prompt researchers to further investigate the effect of social networks, trust and related factors in these countries, especially considering that most of the studies in the meta-analysis that deal with developing countries focus on corruption, as mentioned in section 4.

Columns 3 to 8 are devoted to some sensitivity analyses. In particular, the non-linear regressions are not included in columns 3 and 4. As expected, the results in column 3 replicate the results in column 1 (in which NOT_LIN is dropped), apart from a couple of irrelevant differences in the robust standard errors. In columns 5 and 6 only the published papers are included in the sample. In columns 7 and 8, the paper by Paniagua et al. (2017), which considers a peculiar type of social network (as briefly explained in section 3), is excluded from the regressions. All the major findings relating to the main model specification are confirmed: the five-year impact factor is significantly negative with the dependent variable SIGNIF; PAN is never statistically significant; the variables VAL_POS and PREV_DEV still have a relevant positive impact, with both SIGNIF and POS_SIG; and FORM_INS always has a negative sign. Finally, as a robustness check, the model was estimated again after assigning each observation a frequency weight according to the number of repeated regressions included in each study. The main conclusions that can be drawn from the unweighted estimates do not

change. To give an example, the weighted estimates for the main specification model are given in columns 9 and 10.

Although these results prompt some interesting considerations, also in terms of recommendations for multinational firms and policy-makers (as highlighted in the conclusions in section 6), the present empirical analysis suffers from some limitations. First, conclusions drawn from a meta-analysis are generally only valid in relation to the papers analysed (Ghisetti & Pontoni, 2015), and their validity can be undermined by inaccuracies in the primary studies. For instance, only some of the papers reviewed (i.e. Mudambi et al., 2012; Helmy, 2013; Sekkat, 2014, Mèon & Sekkat, 2015; Paniagua et al., 2017) deal with the endogeneity of some explanatory variables, including the informal institution considered. Second, the present meta-analysis is based on a relatively limited number of observations due to the paucity of empirical papers focusing on the relationship between inward FDI and informal institutions other than corruption for more than one country. In addition, the focus in this study is on institutions at national level, although two interesting papers included in the literature review (Mudambi & Navarra, 2003; Choe & Lee, 2016) consider inward FDI and informal institutions in regions, rather than countries. This should remind us of the relevance of regional institutions too, and of the need to take into account their peculiarities vis-à-vis national institutions[7].

6. Conclusions

The main aims of this work were to delve into the intriguing topic of informal institutions, and to investigate whether and to what extent they help a country to attract FDI. After taking a look at informal institutions and their main effects on FDI inflows, and reviewing recent empirical papers dealing with this issue, a simple meta-analysis was conducted, based on the information extracted from the regression models of a selection of relevant studies.

The main conclusions that can be drawn from the present work are as follows: (i) according to most of the empirical literature reviewed, informal institutions matter for inward FDI; (ii) a broad array of factors typically favouring FDI and solid social networks of individuals and firms tend to attract significantly more foreign investors; and (iii) the role of informal institutions in influencing FDI seems especially relevant for developing economies.

The first result suggests that researchers should try to include indicators of informal institutions as well when analysing the effect of a country's institutional framework on its inward FDI or other economic variables. Managers of foreign firms and policy-makers in the host countries should both take these factors into account. In particular, as suggested by our second main finding, they should commit to fighting corruption and promoting collaborative, trust-based relationships between local firms, also by

[7] An interesting recent paper by Casi & Resmini [Casi, L. & Resmini, L. (2017) Foreign direct investment, regional identity and economic growth, Scienze Regionali,16(2), 171-200] has explored this issue using the European regions as a sample. It was not included in the literature review, however, because it focuses on FDI-induced spill-overs conducive to growth and because, apart from the abstract, it is written in Italian.

involving the foreign companies. In turn, the investor company managers should make an effort to be trustworthy and become more integrated in the local society, to understand and respect the values and customs prevailing in the host country, and to join local business networks. Both parties should benefit from their respective efforts. Finally, the third conclusion suggests that these recommendations matter particularly for developing countries, where informal institutions may partially compensate for poor official regulatory systems and governances. Informal institutions may also increase the appeal of these countries for FDI, where the latter can stimulate economic growth, job creation and modernisation.

Despite the limitations briefly illustrated at the end of section 5, the present study thus offers some interesting insight. More and more studies on these topics are rapidly becoming available, so future meta-analyses can be expected to draw on more observations and consequently produce more generalisable conclusions.

Table 2. Results of the probit regressions

	main specification		linear regressions only		published papers only		paper by Paniagua et al. excluded		main specification with weights	
	1	2	3	4	5	6	7	8	9	10
dep.variable -->	SIGNIF	POS_SIG	SIGNIF	POS_SIG	SIGNIF	POS_SIG	SIGNIF	POS_SIG	SIGNIF	POS_SIG
regressors										
IF5	-0.4886***	-0.302	-0.4886***	-0.2517	-0.5909**	-0.603	-0.558***	-0.231	-0.4138**	-0.0260
	(0.1800)	(0.216)	(0.1800)	(0.2237)	(0.2453)	(0.559)	(0.156)	(0.220)	(0.1846)	(0.285)
FWCI	0.9690*	0.192	0.9690*	0.1718	0.5907	-0.568	0.960*	0.0359	1.0803***	-0.158
	(0.5480)	(1.045)	(0.5480)	(1.0399)	(0.6009)	(1.005)	(0.552)	(1.049)	(0.3921)	(1.208)
VALPOS_REL	5.2161***	8.146***	5.2161***	5.8080***	4.6100***	4.910***	5.199***	5.757***	5.2845***	5.949**
	(0.3900)	(1.977)	(0.3898)	(0.8388)	(0.5274)	(0.845)	(0.414)	(0.909)	(0.2737)	(2.454)
VAL_NEG	-1.1760	-2.169***	-1.1760	-1.9631***	-1.2334	-2.335***	0.688	-7.394	-1.3601*	-1.524*
	(0.8821)	(0.507)	(0.8821)	(0.5703)	(0.9757)	(0.800)	(0.911)	(4.916)	(0.7563)	(0.847)
PAN	-0.1096	-0.335	-0.1096	-0.3637	-0.2244	-0.397	0.247	-0.502	-0.2268	-0.991
	(0.5633)	(0.581)	(0.5633)	(0.6089)	(0.6598)	(0.475)	(0.527)	(0.630)	(0.5812)	(0.926)
PREV_DEV	4.5629***	7.042***	4.5629***	4.7827***	4.3527***	4.413***	4.267***	4.938***	4.4704***	5.928***
	(0.6961)	(1.239)	(0.6959)	(0.5839)	(0.7141)	(0.726)	(0.523)	(0.627)	(0.7378)	(1.381)
FORM_INS	-1.1812***	-0.689*	-1.1812***	-0.6952*	-1.0970**	-0.265	-1.434***	-0.186	-1.3389***	-0.536
	(0.3324)	(0.411)	(0.3324)	(0.4215)	(0.4729)	(0.710)	(0.376)	(0.424)	(0.2912)	(0.508)
NUM_OBS	-0.0000	1.24e-05	-0.0000	0.0000	0.0000	1.92e-05	-0.000368***	0.000724	-0.0000	2.34e-05
	(0.0000)	(1.12e-05)	(0.0000)	(0.0000)	(0.0000)	(2.13e-05)	(0.000110)	(0.000547)	(0.0000)	(2.53e-05)
NOT_LIN	omitted	1.233			omitted	2.804	omitted	omitted	omitted	0.483
		(0.765)				(2.227)				(1.114)
Constant	-2.9631***	-6.520***	2.9631***	-4.2561***	-2.1640***	-3.1650**	-3.048**	-4.698***	-2.7929***	-4.634**
	(0.7408)	(1.783)	(1.783)	(0.8927)	(0.8119)	(1.4391)	(1.417)	(0.996)	(0.8027)	(2.084)
N of clusters	16	18	16	16	15	16	15	15	16	18
Pseudo R2	0.211	0.3097	0.211	0.222	0.2653	0.3553	0.2315	0.238	0.1591	0.1919
Observations	71	81	71	71	63	70	68	68	482	525

Robust standard errors in parentheses; ***= p<0.01, **= p<0.05,*=p<0.1.

References

Ahmad, M. & Hall, S.G. (2017). Trust-based social capital, economic growth and property rights: explaining the relationship. International Journal of Social Economics, 44(1), 21-52.

Alemu, A. M. (2012). Effects of corruption on FDI inflow in Asian economies. Seoul Journal of Economics, 25(4), 388-411.

Alesina, A., Algan, Y., Cahuc, P. & Giuliano, P. (2015). Family values and the regulation of labor. Journal of the European Economic Association, 13(4), 599-630.

Alesina, A. & Giuliano, P. (2010). The Power of the family. Journal of Economic Growth, 15 (2), 93-125.

Alesina, A. & Giuliano, P. (2015). Culture and institutions. Journal of Economic Literature, 53(4), 898-944.

Amoroso, S. & Müller, B. (2017). The short-run effects of knowledge-intensive greenfield FDI on new domestic entry. Journal of Technology Transfer, doi:10.1007/s10961-017-9575-y.

Assunção, S., Forte, R. & Teixeira, A. A. C. (2013). Location determinants of FDI: Confronting theoretical approaches with empirical findings. Argumenta Oeconomica, 31(2), 5-28.

Audretsch, D., Boente, W. & Tamvada, J. (2007). Religion and entrepreneurship. Centre for Economic Policy Research (CEPR), Discussion Paper No. DP6378.

Bailey, N. (2016). Exploring the relationship between institutional factors and FDI attractiveness: A meta-analytic review. International Business Review, article in press, doi: 10.1016/j.ibusrev.2017.05.012

Baliamoune-Lutz, M. (2011). Trust-based social capital, institutions, and development. The Journal of Socio-Economics, 40, 335-346.

Bardhan, P. (1997). Corruption and development: A review of issues. Journal of Economic Literature, 35(3), 1320-46.

Barro, R. J. & McCleary, R. M. (2003). Religion and economic growth across countries. American Sociological Review, 68 (5), 760–781.

Beugelsdijk, S. & van Schaik, T. (2005). Social capital and growth in European regions: An empirical test. European Journal of Political Economy, 21, 301-324.

Bettendorf, L. & Dijkgraafb, E. (2010). Religion and income: Heterogeneity between countries. Journal of Economic Behavior & Organization, 74, 12-29.

Bhardwaj, A., Dietz, J. & Beamish, P. W. (2007). Host country cultural influences on foreign direct investment. Management International Review, 47 (1), 29- 50.

Blomström, M. & Kokko, A. (1998). Multinational corporations and spillovers. Journal of Economic Surveys 12(3), 247-277.

Bohenet, I. (2008). Trust in experiments. In: Durlauf, S.N., Blume, L.E. (ed.), The New Palgrave Dictionary of Economics Online. Palgrave Macmillan.

Borenstein, M., Hedges, L. V., Higgins, J. P. & Rothstein, H. R. (2011). Introduction to Meta-analysis. Chichester, England: John Wiley & Sons.

Carswell, P. & Rolland, D. (2007). Religion and entrepreneurship in New Zealand. Journal of Enterprising Communities: People and Places in the Global Economy, 1(2), 162-174.

Chakraborty T., Mukherjee A. & Sarani S. (2015). Courtship, kinship and business: A study on the interaction between the formal and the informal institutions and its effect on entrepreneurship. IZA Journal of Labor & Development, 4(7), 1-21.

Choe, J-I. I. & Lee, K-D (2016). Does social capital matter in the location decision of foreign direct investment? Evidence from Korea. Asian Economic Papers, 15(2), 72-102.

Demena, A. B. & van Bergeijk, P. A. G. (2017). A meta-analysis of fdi and productivity spillovers in developing countries. Journal of Economic Surveys, 31(2), 546-571.

Dunning, J. (2000). The eclectic paradigm as an envelope for economic and business theories of MNE activity. International Business Review, 9, 163-190.

Fernández, R. & Fogli, A. (2009). Culture: An empirical investigation of beliefs, work, and fertility. American Economic Journal: Macroeconomics1(1), 146-177.

Ghisetti, C. & Pontoni, F. (2015). Investigating policy and R&D effects on environmental innovation: A meta-analysis. Ecological Economics, 118, 57-66.

Giavazzi, F., Petkov, I. & Schiantarelli, F. (2014). Culture: Persistence and evolution. Boston College Working Paper 853.

Gorodnichenko, Y. & Roland, G. (2010). Culture, institutions and the wealth of nations. NBER Working Paper Series, 16368.

Grafton, R. Q., Kompas, T. & Owen, P. D. (2002). Social divergence and productivity: Making a connection. The Review of Economic Performance and Social Progress, 2, 203-223.

Guiso, L., Sapienza, P. & Zingales, L. (2006). Does culture affect economic outcomes? Journal of Economic Perspectives, 20(2), 23-48.

Habib, M. & Zurawicki, L. (2002). Corruption and foreign direct investment. Journal of International Business Studies, 33(2), 291-307.

Hahn, E. D. & Bunyaratavej K. (2010). Services cultural alignment in offshoring: The impact of cultural dimensions on offshoring location choices. Journal of Operations Management, 28,186-193.

Harriss-White, B. (2010). Work and wellbeing in informal economies: The regulative roles of institutions of identity and the State. World Development, 38(2), 170-183.

Havranek,T. & Irsova, Z. (2011). Estimating vertical spillovers from FDI: Why results vary and what the true effect is. Journal of International Economics, 85 (2011) 234-244.

Helmke, G. & Levitsky, S. (2006). Informal institutions and democracy. Lessons from Latin America. Baltimore, MD. John Hopkins University Press.

Helmy, H. E. (2013). The impact of corruption on FDI: is MENA an exception? International Review of Applied Economics, 27(4), 491-514.

Hergueux, J. (2011). How does religion bias the allocation of foreign direct investment? The role of institutions. International Economics, 128, 53-76.

Hofstede, G. (1984). Culture consequences: International differences in work-related values. Beverly Hills, California. Sage Publications.

Hofstede, G. (2001). Cultural consequences: Comparing values, behaviors, institutions and organizations across nations. Beverly Hills, California. Sage Publications.

Hodgson, G. M. (2006). What are institutions? Journal of Economic Issues, 40(1), 1-25.

Holmes, R. M, Miller T., Hitt, M. A. & Salmador, M. P. (2013). The interrelationships among informal institutions, formal institutions, and inward foreign direct investment. Journal of Management, 39(2), 531-566.

Houston, D. (2007). Can corruption ever improve an economy? Cato Journal, 27(3), 325-342.

Huntington, S. (1968). Political order in changing societies. New Haven, CT. Yale University Press.

Iannaccone, L. R. (1998). Introduction to the economics of religion. Journal of Economic Literature, 36, 1465-1495.

Inkpen, A. C. & Tsang, E. W. K. (2005), Social capital, networks, and knowledge transfer. The Academy of Management Review, 30 (1), 146-165

Islam, N. (2008). Determinants of productivity across countries: An exploratory analysis. The Journal of Developing Areas, 42(1), 201-242.

Iwasaki, I. & Tokunaga, M. (2016). Technology transfer and spillovers from FDI in transition economies: A meta-analysis. Journal of Comparative Economics, 44(4), 1086-1114.

Jalil, A., Qureshi, A. & Feridun, M. (2016). Is corruption good or bad for FDI? Empirical evidence from Asia, Africa and Latin America. Panoeconomicus, 63(3), 259-271.

Kaasa, A. (2015). Culture, religion and social capital: Evidence from European regions. International Journal of Sociology and Social Policy, 35 (11/12),772 -794.

Knack, S. & Keefer, P., (1997). Does social capital have an economic pay-off? A cross-country investigation. Quarterly Journal of Economics, 112(4), 1251-1288.

Kortt, M. A. & Dollery, B. (2012). Religion and the rate of return to human capital: Evidence from Australia. Applied Economics Letters, 19 (10), 943-946.

Kunčić, A. (2014). Institutional quality dataset. Journal of Institutional Economics, 10 (1), 135-161.

Kunčić, A. & Jaklić, A. (2014). FDI and institutions: Formal and informal institutions. Multinational Enterprises, Markets and Institutional Diversity, 7, 171-205.

Lal, D. (2001). Unintended consequences: The impact of factor endowments, culture, and politics on long-run economic performance. Ohlin Lectures Cambridge, MA. MIT Press.

Lee, M. & Park, D. (2013). Intellectual property rights, quality of institutions, and foreign direct investment into developing Asia. ADB Economics Working Paper Series n.354.

Li, S. & Filer, R. (2007). The effects of the governance environment on the choice of investment mode and the strategic implications. Journal of World Business, 42(1), 80-98.

Lui, F. (1985), An equilibrium queuing model of bribery. Journal of Political Economy, 93(4), 760-81.

Marcić, S. (2015). Informal institutions in the Western Balkans: An obstacle to democratic consolidation. Journal of Balkan and Near Eastern Studies, 17(1), 1-14.

McShane, B. B., Böckenholt U. & Hansen, K. T. (2016). Adjusting for publication bias in meta-analysis: An evaluation of selection methods and some cautionary notes. Perspectives on Psychological Science, 11(5), 730-749.

McSweeney, B. (2002). Hofstede's model of national cultural differences and their consequences: A triumph of faith - a failure of analysis. Human Relations, 55(1), 89-118.

Mèon, P-G. & Sekkat, K. (2015). The formal and informal institutional framework of capital accumulation. Journal of Comparative Economics, 43, 754-771.

Minarik, P. (2014). Religion and economic attitudes in post-communist transition. Post-Communist Economies, 26(1), 67-88.

Mohmand, S.K. & Misic-Mihajlović, S. (2014). Connecting citizens to the State: Informal local governance institutions in the Western Balkans. IDS Bulletin, 45(5), 81-91.

Mudambi, R. & Navarra, P. (2003). Political culture and foreign direct investment: The case of Italy. Economics of Governance, 4, 37-56.

Mudambi, R. Navarra, P. & Delios, A. (2013). Government regulation, corruption, and FDI. Asia Pacific Journal of Management, 30, 483-511.

Noonan, J. T. (1984). Bribes. Berkeley, CA. University of California Press.

North, D. (1990). Institutions, institutional change and economic performance. Cambridge (UK). Cambridge University Press.

North, D. (1991). Institutions. Journal of Economic Perspectives, 5(1), 97-112.

Nunziata, L. & Rocco, L. (2016). A tale of minorities: Evidence on religious ethics and entrepreneurship. Journal of Economic Growth, 21(2), 189-224.

OECD (2008): OECD Benchmark Definition of Foreign Direct Investment - Fourth edition. OECD Publishing. https://www.oecd.org/daf/inv/investmentstatisticsandanalysis/40193734.pdf. Last access: 05/03/2017

Onda, M. (2013). Mutual help networks and social transformation in Japan. American Journal of Economics and Sociology, 72(3), 531-536.

Paniagua, J., Korzynski, P. & Mas-Tur, A. (2017). Crossing borders with social media: Online social networks and FDI. European Management Journal, 35, 314-326.

Peng, M. W., Wang, D. Y., & Jiang, Y. (2008). An institution-based view of international strategy: A focus on emerging markets. Journal of International Business Studies, 39, 920-936.

PRS Group. International Country Risk Guide Methodology. https://www.prsgroup.com/wp-content/uploads/2012/11/icrgmethodology.pdf. Last access: 30/03/2017

Putnam, R., Leonardi, R. & Nanetti, R. Y. (1993). Making Democracy Work. Princeton (NJ). Princeton University Press.

Quazi, R. M. (2014). Corruption and foreign direct investment in East Asia and South Asia: An econometric study. International Journal of Economics and Financial Issues, 4(2), 231-242.

Saleh, A. S. , Nguyen, T. L. A., Vinen, D., & Safarid, A. (2017). A new theoretical framework to assess Multinational Corporations' motivation for Foreign Direct Investment: A case study on Vietnamese service industries. Research in International Business and Finance, 42, 630-644.

Sathe, S. & Handley-Schachler, M. (2006). Social and cultural factors in FDI flows: Evidence from the Indian states. World Review of Entrepreneurship, Management and Sustainable Development, 2(4), 323-334.

Schwartz, S. H. (1994). Beyond individualism/collectivism: New cultural dimensions of values. In: U. Kim, H. C. Triandis, C. Kagitcibasi, S. C. Choi & G. Yoon (Eds.), Individualism and Collectivism: Theory Method and Applications, 85-119. Thousand Oaks, California: Sage Publications.

Scott, W. R. (2008a). Institutions and Organizations: Ideas and Interests. 3rd ed. Thousand Oaks (CA). Sage Publications.

Scott, W. R. (2010). Reflections: The past and future of research on institutions and institutional change. Journal of Change Management, 10(1), 5-21.

Sekkat, K. (2014). Is there anything special with intra-Arab foreign direct investment? Journal of Economic Integration, 29(1), 139-164.

Seyoum, B. (2011). Informal institutions and foreign direct investment. Journal of Economic Issues, 45(4), 917-940.

Sinnewe, E., Kortt, M. & Steen, T. (2016). Religion and earnings: Evidence from Germany. International Journal of Social Economics, 43 (8), 841 -855.

Smarzynska, B. K. & Wei, S. J. (2002). Corruption and composition of foreign direct investment: Firm-level evidence. NBER Working Paper N. 7969.

Spencer, J. W. (2008). The impact of multinational enterprise strategy on indigenous enterprises: Horizontal spillovers and crowding out in developing countries. Academy of Management Review, 33, 341-361.

Stanley, T.D. & Doucouliagos, H. (2012). Meta-regression analysis in economics and business. London (GB). Routledge.

Stanley, T.D., Doucouliagos, H., Giles, M., Heckemeyer, J.H., Johnston,R.J., Laroche, P., Nelson, J.P., Paldam, M., Poot, J., Pugh, G., Rosenberger, R.S. & Rost, K. (2013). Meta-analysis of economics research reporting guidelines. Journal of Economic Surveys, 27(2), 390-394.

Stanley, T. D. & Jarrell, S. B. (2005). Meta-regression analysis: A quantitative method of literature surveys. Journal of Economic Surveys, 19 (3), 299-308.

Sumner, W. G. (1906). Folkways. A Study of the Sociological Importance of Usages, Manners, Customs, Mores, and Morals. Boston (MA). Ginn & Co.

Tabellini, G. (2010). Culture and institutions: Economic development in the regions of Europe. Journal of the European Economic Association, 8(4), 677-716.

Tokunaga, M. & Iwasaki, I. (2017). The determinants of foreign direct investment in transition economies: A meta-analysis. World Economy, article in press, doi 10.1111/twec.12477.

Tullock, G. (1996). Corruption theory and practice. Contemporary Economic Policy, 14, 6-13.

Wang, H. (2000). Informal institutions and foreign investment in China. The Pacific Review, 13(4), 525-556.

Weber, M., Baehr, P. & Wells, G. (2002 [1905]).The Protestant Ethic and the Spirit of Capitalism. London (UK). Penguin Books.

Williamson, C. R. & Kerekes, C. B. (2008). Securing private property: Formal versus informal institutions. Journal of Law & Economics, 54(3), 537-572.

Wiseman, T. & Young, A. (2014). Religion: Productive or unproductive? Journal of Institutional Economics, 10(1), 21-45.

Wu, J., Li, S. & Selover, D. D. (2012). Foreign direct investment vs. foreign portfolio investment. The effect of the governance environment. Management International Review, 52,643-670.

Zhao, J., Kim, S. H. & Du, J. (2003). The impact of corruption and transparency on foreign direct investment: An empirical analysis. Management International Review, 43(1), 41-62.

Zhao, H. & Kim, S. H. (2011). An exploratory examination of the social capital and FDI linkage and the moderating role of regulatory quality: A cross-country study. Thunderbird International Business Review, 53(5), 629-646.

Zucker, L. G. (1987). Institutional theories of organization. Annual Review of Sociology, 13, 443-464.

Appendix

Table A1 The primary studies and the variables included in the meta-analysis

id	author	IF5	FWCI	SIGNIF	POS_SIG	NEG_SIG	VAL_NEG	ILL	VALPOS_REL	FORM_INS	DEV_EC	PREV_DEV	PAN	NOT_LIN	NUM_OBS
1	Alemu	0.32	0	1	0	1	0	1	0	0	1	1	1	0	240
1	Alemu	0.32	0	1	0	1	0	1	0	0	1	1	1	0	240
1	Alemu	0.32	0	1	0	1	0	1	0	0	1	1	1	0	240
2	Bhardwaj et al.	1.798	1	0	0	0	0	0	1	1	1	0	0	0	43
2	Bhardwaj et al.	1.798	1	1	0	1	1	0	1	1	1	0	0	0	43
3	Hahn & Bunyaratavej	7.692	1	1	0	1	1	0	1	0	1	0	1	1	222
3	Hahn & Bunyaratavej	7.692	1	1	0	1	1	0	1	0	1	0	1	1	222
3	Hahn & Bunyaratavej	7.692	1	1	0	1	1	0	1	1	1	0	1	1	222
3	Hahn & Bunyaratavej	7.692	1	1	0	1	1	0	1	1	1	0	1	1	222
4	Helmy	0.965	1	1	1	0	0	1	0	1	1	1	1	0	96
4	Helmy	0.965	1	1	1	0	0	1	0	1	1	1	1	0	50
4	Helmy	0.965	1	1	1	0	0	1	0	1	1	1	1	0	44
4	Helmy	0.965	1	0	0	0	0	1	0	1	1	1	1	0	96
4	Helmy	0.965	1	0	0	0	0	1	0	1	1	1	1	0	63
4	Helmy	0.965	1	0	0	0	0	1	0	1	1	1	1	0	19
4	Helmy	0.965	1	1	1	0	0	1	0	1	1	1	1	0	63
4	Helmy	0.965	1	1	1	0	0	1	0	1	1	1	1	0	96
4	Helmy	0.965	1	1	1	0	0	1	0	1	1	1	1	0	50

4	Helmy	0.965	1	1	1	0	0	1	0	1	1	1	1	0	33
5	Holmes et al.	9.238	1	0	0	0	0	0	1	1	1	0	1	0	450
5	Holmes et al.	9.238	1	0	0	0	0	0	1	0	1	0	1	0	450
6	Jalil et al.	0.867	1	1	0	1	0	1	0	0	1	1	1	0	551
6	Jalil et al.	0.867	1	1	0	1	0	1	0	0	1	1	1	0	377
6	Jalil et al.	0.867	0	1	1	0	0	1	0	0	1	1	1	0	290
6	Jalil et al.	0.867	0	1	1	0	0	1	0	0	1	1	1	0	1218
6	Jalil et al.	0.867	0	1	1	0	0	1	0	0	1	1	1	0	377
6	Jalil et al.	0.867	0	1	1	0	0	1	0	0	1	1	1	0	290
6	Jalil et al.	0.867	0	1	1	0	0	1	0	0	1	1	1	0	377
6	Jalil et al.	0.867	0	1	1	0	0	1	0	0	1	1	1	0	290
6	Jalil et al.	0.867	0	1	1	0	0	1	0	0	1	1	1	0	551
6	Jalil et al.	0.867	0	1	1	0	0	1	0	0	1	1	1	0	1218
6	Jalil et al.	0.867	0	1	1	0	0	1	0	0	1	1	1	0	551
6	Jalil et al.	0.867	0	0	0	0	0	1	0	0	1	1	1	0	1218
7	Kunčić & Jaklić	0.242	0	1	0	1	1	0	1	1	1	0	1	0	4908
7	Kunčić & Jaklić	0.242	0	0	0	0	1	0	1	1	1	0	1	0	5154
7	Kunčić & Jaklić	0.242	0	1	1	0	1	0	1	0	1	0	1	0	9385
7	Kunčić & Jaklić	0.242	0	0	0	0	1	0	1	0	1	0	1	0	9147
7	Kunčić & Jaklić	0.242	0	1	0	1	1	0	1	0	1	0	1	0	7853
7	Kunčić & Jaklić	0.242	0	0	0	0	1	0	1	1	1	0	1	0	5481
8	Lee & Park	0	0	1	0	1	0	1	0	1	1	1	1	0	300
8	Lee &Park	0	0	1	0	1	0	1	0	0	1	1	1	0	300
8	Lee & Park	0	0	1	0	1	0	1	0	1	1	1	1	0	45
8	Lee & Park	0	0	1	0	1	0	1	0	0	1	1	1	0	67
8	Lee & Park	0	0	0	0	0	0	1	0	0	1	1	1	0	553
8	Lee & Park	0	0	0	0	0	0	1	0	1	1	1	1	0	553

8	Lee & Park	0	0	1	0	1	0	1	0	0	1	1	1	0	45
8	Lee & Park	0	0	0	0	0	0	1	0	1	1	1	1	0	67
9	Mudambi et al.	2.5	1	0	0	0	0	1	0	1	1	1	0	0	55
9	Mudambi et al.	2.5	1	1	0	1	0	1	0	1	1	1	1	0	220
10	Meon & Sekkat	1.695	0	0	0	0	0	0	1	1	1	0	1	0	199
10	Meon & Sekkat	1.695	0	1	1	0	0	0	1	1	1	0	1	0	199
11	Paniagua et al.	2.608	0	1	1	0	0	0	1	0	1	0	1	0	36504
11	Paniagua et al.	2.608	0	1	1	0	0	0	1	0	1	0	1	0	36504
11	Paniagua et al.	2.608	0	0	0	0	0	0	1	1	1	0	1	0	36504
11	Paniagua et al.	2.608	0	1	1	0	0	0	1	0	1	0	1	1	36504
11	Paniagua et al.	2.608	0	1	1	0	0	0	1	0	1	0	1	1	36504
11	Paniagua et al.	2.608	0	1	1	0	0	0	1	1	1	0	1	1	36504
12	Quazi	0.957	1	1	0	1	0	1	0	1	1	1	1	0	161
12	Quazi	0.957	1	1	0	1	0	1	0	1	1	1	1	0	161
12	Quazi	0.957	1	1	0	1	0	1	0	1	1	1	1	0	161
12	Quazi	0.957	1	1	0	1	0	1	0	1	1	1	1	0	161
12	Quazi	0.957	1	1	0	1	0	1	0	1	1	1	1	0	161
12	Quazi	0.957	1	1	0	1	0	1	0	1	1	1	1	0	161
12	Quazi	0.957	1	1	0	1	0	1	0	1	1	1	1	0	125
13	Sekkat	0.425	0	1	1	0	0	0	1	1	1	1	1	0	57
13	Sekkat	0.425	0	1	1	0	0	0	1	1	1	1	1	0	83
13	Sekkat	0.425	0	1	1	0	0	0	1	1	1	1	1	0	97
13	Sekkat	0.425	0	1	1	0	0	0	1	1	1	1	1	0	77
14	Seyoum	0.569	0	1	1	0	0	0	1	1	1	0	0	0	107
15	Smarzynska & Wei	0	1	1	0	1	0	1	0	0	0	0	1	1	6320
15	Smarzynska & Wei	0	1	1	0	1	0	1	0	0	0	0	1	1	6320
15	Smarzynska & Wei	0	1	1	0	1	0	1	0	0	0	0	1	1	6320

16	Wang	0.525	1	1	1	0	0	0	1	1	1	1	0	0	22
16	Wang	0.525	1	1	1	0	0	0	1	1	0	0	0	0	71
16	Wang	0.525	1	1	1	0	0	0	1	1	1	1	0	0	49
17	Wu et al.	1.798	0	0	0	0	0	0	1	1	1	0	0	0	40
17	Wu et al.	1.798	0	1	1	0	0	0	1	1	1	0	0	0	40
18	Zhao & Kim	1.07	0	1	1	0	0	0	1	0	1	0	0	0	76
18	Zhao & Kim	1.07	0	1	1	0	0	0	1	1	1	0	0	0	76
18	Zhao & Kim	1.07	0	1	1	0	0	0	1	1	1	0	0	0	76
18	Zhao & Kim	1.07	0	1	1	0	0	0	1	1	1	0	0	0	76

Note: this table reports the values taken on also by the variable NEG_SIG and DEV_EC, which are not used in the regression estimates: in Table 2 I did not show the regression results for the dependent variable NEG_SIG since the main aim of this work is to better understand whether at least some types of informal institution attract inward FDI; moreover, the related results are quite symmetric with respect to the results obtained by using POS_SIG as dependent variable (namely, VAL_REL is significantly negative while VAL_NEG is significantly positive). With regard to DEV_EC, as I stated in the Notes section, I replaced it with the variable PREV_DEV since DEV_EC takes on value 1 in almost all the primary studies and then there should not be enough variability to allow an estimate of its coefficient.

Table A2 Summary Statistics of the variables included in the meta-analysis

	Observations	Mean	Standard deviation	min	max
SIGNIF	81	0.7901235	0.4097575	0	1
POS_SIG	81	0.4444444	0.5	0	1
NEG_SIG	81	0.345679	0.4785523	0	1
IF5	81	1.453864	2.06149	0	9238
FWCI	81	0.4320988	0.8820921	0	1
VAL_NEG	81	0.1358025	0.3447132	0	1
ILL	81	0.5555556	0.5	0	1
VALPOS_REL	81	0.4444444	0.5	0	1
FORM	81	0.5925926	0.4944132	0	1
PREV_DEV	81	0.5925926	0.4944132	0	1
PAN	81	0.8395062	0.3693504	0	1
NOT_LIN	81	0.1234568	0.3310104	0	1
NUM_OBS	81	3642.778	9593.209	19	36504

Table A3 Pairwise correlations between the regression of the meta-analysis

	IF5	FWCI	VAL_NEG	ILL	VALPOS_REL	FORM_INST	PREV_DEV	PAN	NOT_LIN	NUM_OBS
IF5	1.0000									
FWCI	0.3237	1.0000								
VAL_NEG	0.3171	0.0180	1.0000							
ILL	-0.3967	0.2285	-0.4432	1.0000						
VALPOS_REL	0.3967	-0.2285	0.4432	-1.0000	1.0000					
FORM_INST	-0.0029	0.3175	-0.0380	-0.1854	0.1854	1.0000				
PREV_DEV	-0.4209	0.1146	-0.4781	0.7753	-0.7753	0.0284	1.0000			
PAN	0.0457	-0.0260	0.0751	0.4212	-0.4212	-0.2941	0.3220	1.0000		
NOT_LIN	0.4406	0.2030	0.2894	-0.1930	0.1930	-0.2235	-0.4526	0.1641	1.0000	
NUM_OBS	0.1125	-0.2709	0.0105	-0.3467	0.3467	-0.2138	-0.4284	0.1643	0.3658	1.0000