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DOI:
https://doi.org/10.1016/j.intman.2021.100834

Document Version
Accepted author manuscript

Link to publication record in Manchester Research Explorer

Citation for published version (APA):

Published in:
Journal of International Management

Citing this paper
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HOW FDI INFLOWS TO EMERGING MARKETS ARE INFLUENCED BY COUNTRY REGULATORY FACTORS: AN EXPLORATORY STUDY

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ABSTRACT

Foreign Direct Investment (FDI) inflows to emerging nations exhibit a big variation. To what extent do host-country regulatory and institutional variables attract or repel FDI? We integrate various theoretical perspectives: transaction cost economics, global value chain analysis and liability of foreignness to examine the impact of formal regulations, rule-of-law, property rights, procedural bottlenecks and infrastructure on the attractiveness of an emerging market for the period 2004 to 2016. We seek to identify which of the many regulatory variables most influence the FDI decision. We find that countries with more efficient start-up regulations, stronger protection of minority investment, and better procedures and infrastructure for international trade across their borders attract more FDI. These results have important implications for policy reform in emerging markets, as well as for multinationals selecting which nations to invest in.

Keywords: Foreign direct investment; FDI regulations, business environment; ease of doing business.
1. Introduction

Starting in the 1990s there was a sea-change reversal in government attitudes towards Foreign Direct Investment. The Foreign Direct Investment (FDI) to GDP ratio which had been declining until the late 1980s, then began a sharp increase (Subramanian & Kessler, 2013). Especially in the 21st century, emerging nations have dismantled restrictions on inward FDI and have taken measures to improve their business climate in general -- transitioning from a state-centralized approach to a market-based policy (Clague, 1997; Meyer, 2001). Emerging countries’ heads of state, from India’s Modi to Russia’s Putin to China’s Xi announced their countries’ objective to raise their nation’s ranking in the World Bank’s ‘Ease of Doing Business’ index (Mishra, 2014). However, the pattern of this regulatory reform has not been even over the more than 120 emerging nations. While emerging country leaders wish to improve the regulatory climate for foreign investors, their policy makers are unclear as to which specific institutional changes most powerfully affect FDI inflows. According to Daude & Stein (2007) in terms of “...significant effect on FDI, some institutional aspects matter more than others do.” This is clearly a question of importance to government policies and MNC managers who, nowadays, will first carefully assess the business climate across several nations and then decide on which emerging country they will invest in (or shun). A broader examination of host nation regulatory institutions and the foreign firm’s FDI decision to invest, therefore, is necessary.

Literatures in international economics and international business on emerging markets have focused on two host nation characteristics. The first focuses on the quality or effectiveness of the nation’s rule-of-law or property rights (e.g. Meyer, 2001; Meyer, Estrin, Bhaumik, & Peng, 2009; Jandhyala, 2013), and views MNCs as being concerned about protecting their knowledge and intellectual property rights in emerging countries. The second literature stream focuses more on the initial market entry or establishment of business (e.g. Alesina et. al., 2005) – arguing that entry barriers which increase the cost

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1 See Appendix A summarizing the changes in FDI Policies (UNCTAD, 2017).
2 Subcomponents of the World Bank’s indicators may be seen in Table 1.
of starting new business can prevent multinational companies from entering emerging markets. These two streams of literature are influenced primarily by transaction cost economics (Williamson, 1975 and 2010), but they have overlooked how other aspects of institutions playout in the FDI decision. Thus, there is a need to study host country institutions in emerging markets in a multi-pronged approach that includes transaction cost economics, but also examines other criteria in the relationship between FDI decisions and host nation institutions (Peng, Wang & Jiang, 2008).

In this study, we ask (i) whether and how country-level regulations and institutions influence the choice made by multinational corporations (MNCs) in choosing between countries as investment destinations, and (ii) which regulatory changes (statistically) have the strongest effect on incoming FDI. We then disaggregate a country’s institutional climate into eight sub-indicators using a framework developed by the World Bank: starting business regulations, registering property, getting credit, protection of minority investment, tax regulations, trade across borders, contract enforcement and resolving insolvency. Some of these variables echo a study by Contractor et al. (2020) which did not specifically focus on emerging markets, which this paper does. All eight explanatory variables have not been comprehensively tested before for all 120 or 149 emerging nations, with the objective of identifying which factors matter most. The few previous studies cited above have only sporadically covered selected regions or have tested only a couple of institutional sub-indicators. Contractor, Dangol, Nuruzzaman & Raghunath (2020) covered all 189 nations, whereas the focus here is on emerging countries only, with additional explanatory variables.

This article applies and reinforces two theories: institutional theory and transaction cost economics (TCE) to the foreign direct investment (FDI) process – from the point of view of both the MNC which has to choose which emerging country to invest in, as well as from the perspective of host government policies that seek to attract FDI. It augments TCE theory by showing several ways in which transaction costs and ‘asset specificity’ affect the MNE’s selection of nations to invest in, and how that informs their strategies. In terms of institutional theory, it refutes Van Hoorn & Maseland’s (2016) conclusion “…that current
institutional research in international business is unable to explain how institutions matter for MNEs…”.

This, in fact, is the overall objective of this paper. By disaggregating the institutional and regulatory set up into eight sub-categories, our objective is to identify how each type of regulation affects MNCs, and which regulatory variables particularly affect FDI going to emerging nations more so than others, depending on which of the eight hypotheses is supported or rejected. This follows Ostrom’s (2010) work that indicated that a nation’s institutional set up involves multiple sub-indicators.

In this paper we focus on ‘regulative’ rather than ‘cognitive’ aspects such as culture or norms, for the following reasons. First, the sub-field of cultural distance in International Business studies has been fraught with ambiguous conclusions so that there is little consensus in the literature (Shenkar, 2012, 2001; Konara & Mohr, 2019). Second, as illustrated by the rate of change of indicators in the World Values Survey, culture, cognition and societal norms only change slowly, at intergenerational rates of change (e.g., Inglehart, Ponarin & Inglehart, 2017), whereas our panel data only span 12 years – too short a time to reflect cultural changes. By contrast, governments are able to change regulations or FDI-protectionist barriers at the stroke of a pen – something that has occurred frequently in the 12-year period. Moreover, their measurement\(^3\) is less ambiguous compared with measurements of cultural differences or societal value changes. Third, culture and norms are, in any case to a large extent, already incorporated and reflected in the changes a government makes in its formal institutions and regulations (Holmes, Miller, Hitt & Salmador, 2013).

This paper’s findings will have obvious policy implications. Governments wish to know which regulatory factors they should focus on to attract more FDI. Similarly, MNCs scan the range of emerging countries’ regulations, to decide which nation to select for investment.

2. Theory Background

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\(^3\) The World Bank’s survey since the year 2004 uses objective measures applied equally across all countries.
We rely substantially on two theories and literatures. Institutional Theory, pioneered by North (1990) and Scott (1995), later amplified by Ostrom (2005), and adapted by management scholars such as Kang & Jiang (2012) or Trevino, et al. (2008), or Kostova & Roth (2002), is used to investigate MNC strategy and investment choices. While Transactions Cost Economics (TCE) theory (e.g., Williamson, 1985) was concerned with the choice between internalization and externalization (i.e., outsourcing), several TCE concepts such as contract enforceability and asset specificity can also be applied to the selection of one country versus another as an investment destination. International Business paradigms such as Dunning’s (1988) OLI (Ownership, Location, Internalization) in retrospect state the obvious, that FDI depends on ownership or resource-based advantages (Wernerfelt, 1984) and that locational characteristics of the foreign nation also matter.

We also draw on concepts from the Global Value Chain (GVC) or supply chain literature. FDI and international trade are inseparably intertwined, and global supply chain management emphasizes cost efficiency, flexibility and ease of exit (as conditions change). Lastly, we draw on the international business literature for our last concept, namely the “Liability of Foreignness” (e.g., Van Hoorn & Maseland, 2016 and Zaheer, 1995).

2.1 Institutional Theory

Some institutional theory scholars distinguish between informal societal knowledge (cognitive), informal social norms (normative) and formal government regulations (regulative) (e.g., Scott, 1995; Mudambi & Navarra, 2002). Societal consciousness, culture and norms are implicit, compared with formal regulations, which are made explicit in government rules, procedures and requirements imposed on business. These constitute an important determinant of strategy and FDI decisions (Acemoglu et al., 2005; Kang & Jiang, 2012; Peng, et al., 2009). Hitt (2016) concludes that institutional differences across countries may be a salient or more relevant factor for managers’ FDI location decisions, than firm or industry variables or macro-economic factors, such as GDP per capita.
A host country’s culture and norms certainly have an influence on the amount of FDI it receives. However, (i) the formal regulations a country adopts to attract (or repel) foreign investment, already incorporate and reflect the nation’s culture and norms; (ii) in the short or medium run -- say over the 12 year horizon of our study -- culture does not change much at all, whereas FDI regulations can, and have, been changed radically from one year to the next; (iii) the empirics of cultural and cultural distance variables have drawn considerable criticism (e.g., Konara & Mohr, 2019; Shenkar, 2012; Shenkar, 2001). In any case, the quest of this paper is to trace the effects of formal regulatory policy changes on FDI inflows (e.g., Henisz & Zelner, 2004).

Different fields focus on different aspect of formal regulatory institutions. For example, Djankov, La Porta, Silanes, and Shleifer (2002) focus on the entry regulations, product, pollution, and bribery. In finance literature, Beck, Levine, and Loayza (2000) focus on the development of financial institutions, and how it affects a firm’s growth. In international economics literature, Corcoran and Gillanders (2015) focus on how trade policy and regulations affect the foreign direct investment decision. In international business and strategic management literature, scholars link firms’ strategic actions, or performance, with aspects such as (i) protection of investment (ii) contract enforcement, (iii) insolvency laws, and (iv) tax regulations (Contractor, Lahiri, Elango & Kundu, 2014; Cuervo-Cazurra, Mudambi, & Pedersen, 2019; Gan and Qiu, 2019; Peng et. al., 2008). In this study, our objective is to provide a holistic examination of the effect of several formal regulatory institutions on the FDI inflows to emerging economies.

Regulations may restrict or dampen certain investments, while in other countries they may facilitate the same business activity. The passage of the Foreign Corrupt Practices act has forced companies to curtail their FDI in certain nations (Cuervo-Cazurra, 2008). The lifting of limits on foreign equity holdings in sectors preciously restricted has resulted in significant increases in inward FDI to several emerging nations such as India, China and Indonesia as measured by Koyama & Golub (2006) who used OECD’s FDI Regulatory Restrictiveness Index. However, the rate and extent of deregulation has varied across nations -- some countries seem to have liberalized far more than others. Hence our 12-
A year time period dataset allows us to assess the impact of change in regulations on FDI patterns in all 120 plus emerging markets.

The empirical evidence so far is also mostly scattered and region-specific (e.g., Grosse and Trevino, 2005, or Bevan, et al., 2004, look only at Central and Eastern European privatization and tax regimes). Other papers have examined the role of investment treaties (e.g., Bevan & Estrin, 2004; Grosse & Trevino, 2005; Trevino et al., 2008). This study, by contrast, will use data on several detailed regulatory variables measured by the World Bank, using the same methodology and survey methods, across all emerging nations.

Nobelist Elinor Ostrom through her theory of institutional polycentrism, shows that institutional influences and rules emanate from multiple (poly) sources and the effect of each on society and economics are not the same (Ostrom, 2010). Governments are not monolithic. For example, in the ease of difficulty of “Trade Across Borders” – a variable the World Bank measures -- not only are tariff rates tracked over time and across countries (something under the purview of the central government), but they also track port delays and loading/unloading costs (which are a function of the local port authority), as well as bureaucratic delays in processing documents which vary from one local port to another. Regarding the “contract enforcement” index, a central government may enact laws, but then their interpretation is up to the judiciary, which also administers the courts, its backlogs and delays.

Hence management scholars have begun to use multiple criteria for regulatory and institutional quality, rather than using one overall indicator (Batjargal, Hitt, Tsui, Arregle, Webb & Miller, 2013). Similarly, economists, such as Acemoglu and Johnson (2005), argue that formal institutions can be grouped into two forms: property rights institutions that provide protection for private citizens from government appropriation and contracting institutions that regulate the economic relationship between private citizens.

2.2 Transaction Cost Theory (TCE) and the FDI decision
While traditional TCE’s focus was on the “make vs. buy” decision, many of TCE’s underlying concepts are also applicable to the “Shall we invest in this country, or not?” or “which country should we invest in?” questions. MNCs seeking to invest abroad will first incur (i) Global scanning and search costs and will then incur (ii) transaction costs of negotiation with the government, local partners or local agents, as the case may be. The investment then needs to be protected from hazards such as intellectual property infringement, partner opportunism, and enforcement of supplier standards, all of which entail (iii) costs of contract enforcement and monitoring which could be higher or lower, depending on the rule-of-law and other regulatory instruments in the nation. Finally, FDI often requires the MNC to endure (iv) “asset specificity” because assets installed in the emerging nation may have few alternate uses (Williamson, 1975), and the investment is not (easily) movable or reversible. Finally, MNCs at the time of the initial investment, are also assessing the cost and consequences of termination or exit from the country, something that depends on the ease or difficulty of bankruptcy or insolvency in the nation. All prospective capital investments undergo a net-present-value (NPV) analysis in which each years’ cash flows are estimated, including the terminal year where the residual value of the investment is a function of the costs of withdrawal or exit. Hence the costs of “exiting” an emerging nation are increasingly being factored into the initial investment decision (Sauvant, 2016; Mannan, 2015; Besley, 2015).

2.3 Supply chain or global value chain (GVC) concepts

Global value chains, that span several nations, are the result of slicing a company’s value chain into discrete operations or modules and then offshoring (and/or outsourcing) each module to a country where the operation can be done more cheaply or efficiently (Contractor, Kumar, Kundu & Pedersen, 2010; Kotabe & Mudambi, 2009; McDermott, Mudambi & Parente, 2013). The MNC acts as a coordinator and orchestrator of the network or GVC (Rugman & D’Cruz, 2003). MNCs or one of their affiliates, acting as either importer or exporter within their GVCs, account for over 75 percent of all world trade (UNCTAD, 2013). Equally remarkable is that in 40 percent of world trade the exporter as well as importer is the very same MNC (Lanz & Miroudot, 2011). Trade and FDI are thus complementary and intertwined.
For the MNC this has three ramifications. First, the entire GVC is vulnerable to the host country’s regulatory institutions, standards, port efficiency, roads and regulations (including tariff and non-tariff trade barriers). Moghaddam et al. (2014, p. 9) state that efficiency-seeking MNCs “… achieve cost reductions …(which) generally would be located in a low-wage country” and hypothesize that this part of the value chain has the smallest value capture or profitability, making it all the more sensitive to local conditions. Second, if a slice of the value chain is outsourced to an external supplier in an emerging nation, negotiation, monitoring and technology transfer costs (as per TCE theory) apply. Moghaddam et al. (2014) state that an “efficiency-seeking” strategy can have the lowest value-added to an acquirer. The emerging nation typically benefits from the transfer of best practices and higher international standards. But the MNC makes itself more vulnerable to disruptions (Taglioni & Winkler, 2016) as we have seen in the Year 2020 pandemic. Any outsourcing, particularly international outsourcing entails a tradeoff between efficiency or cost-reduction on the one hand, versus vulnerability for the MNC’s global chain and inventories – especially when just-in-time delivery pressures are intense (Christopher & Peck, 2012). Thirdly, the average delay, time, number of procedures, documentation and cost of moving goods through the nation’s ports and airfields varies significantly across emerging countries. For example, “throughput per ship per day” exceeded 1300 containers in Thailand and Sri Lanka, but was only 800 in Mumbai and 310 in Chennai in India (Prasad, Sathish & Singh, 2014). The number of forms, procedures, delays and tariffs are also lower in Sri Lanka and Thailand. This can be a powerful deterrent, or attraction, in the MNCs decision to locate value-added activities and make an emerging country a link in the GVC\(^4\). For other regulatory barrier reasons, as well as port efficiency and cost (Wu & Goh, 2010), India hardly figures in global value chains, most of its exports are not time-sensitive, and India’s total merchandise exports are less than one-fifth those of China’s (Babones, 2018), despite the fact that manufacturing labor in India costs $ 0.92 per hour compared to China’s $ 3.5-4.0 per hour. Thus, building on GVC literature,

\(^4\) Trade in services do not encounter impediments at harbors and airports, but face other institutional barriers, measured by the World Bank indicators.
we examine the link between trade regulations including port efficiency and FDI inflows to emerging economies.

2.4 The liability of foreignness concept in international business studies

In this paper, the dependent variable is the magnitude of the inward FDI each country receives as a function of its government regulations and the business environment. The ‘liability of foreignness’ idea, pioneered by Zaheer (1995) and Kostova and Zaheer (1999) suggests that the multinational firms face obstacles and costs over and above those faced by local firms in the host country because of their lack of familiarity or prior connection with the host nation’s institutions, regulations, and social networks. Occasionally MNCs also face adverse discrimination because of their foreignness. The greater the institutional distance or ‘liability of foreignness’ between the MNC and the host country, the greater the cost of initial entry (e.g., barriers to starting a business, or acquiring and registering property), barriers to profitability, such as the transfer of knowledge and skills to its emerging nation affiliate, credit availability, taxes, infrastructural and procedural barriers to cross-border trade, rule-of-law, protection of investor rights, and finally in terms of exit, the time and cost of insolvency (Besley, 2015).

4. Hypotheses

Some of the eight hypotheses below using country factors to see their impact on FDI inflows may be intuitively plain, but because they have not been tested before across all emerging countries, their statistical significance (or non-significance) would itself be of scholarly interest and policy significance. For example, which of the eight variables most powerfully (or statistically) influence the decisions of MNC strategists, in directing FDI to particular nations, and which ones should governments pay more attention to?

4.1 Regulatory Impediments in starting a business

Entry barriers are an important institutional dimension affecting the costs of doing business (Djankov, et. al., 2002), and the performance of the firm (Freund & Bolaky, 2008). There are two competing institutions-based view of entry regulations (Djankov, et. al., 2002). Screening of proposed
investments by governments can be done to ensure that consumers buy goods or services from “desirable sellers,” But also in some countries entry regulations are tools for bureaucrats or politicians to gain influence over business so that they can obtain campaign contributions and votes.

Long bureaucratic processes and delays in starting business increase the initial cost of foreign investment and thus can discourage FDI inflows to certain countries. Such obstacles are described as ‘foreign market entry’ barriers but could equally well fall under TCE -- the obstacles made worse by the fact that MNCs are perceived as foreign (Kostova & Zaheer, 1999). In particular, foreign firms may be discriminated against in some emerging countries when registering a business and take longer when starting a business. In Indonesia, for example, foreign firms have to receive operating licenses from foreign investment regulatory body before they can start operations. Such additional regulations or procedures are a liability and additional transaction costs for the MNC. While entry barriers or a requirement for the minimum size of paid-in capital are unlikely to be an insuperable impediment for larger MNCs, we should not forget the tens of thousands of smaller MNCs, “born-globals,” or startups, which have proliferated since the year 2000 (Cavusgil & Knight, 2015). Hitt (2016) and Sapienza et al. (2006) highlight the role of “early internationalizers” which – being small or medium sized in their early stages -- are more affected by obstacles to starting businesses abroad. Bruton, Ahlstrom & Li (2010) connect the institutional theory literature to entrepreneurship.

In general, UNCTAD’s (2017a) Investment Policy Monitor has been reporting that emerging countries have been seeing a net liberalization in their inward FDI policies, but evidence of their effect is scattered. For example, Canare, Ang & Mendoza (2016) describe how countries in the APEC region are taking steps to remove barriers to the establishment of business with the hope of attracting more FDI. Here we test the hypothesis across all emerging nations – that emerging countries which have more efficient business regulations for starting businesses, should see higher FDI inflows, ceteris paribus.

**Hypothesis 1:** Liberalization in the ease of starting a business is positively associated with FDI inflows amongst emerging markets.
4.2 Acquiring and registering property

Property acquisition is a significant component of initial investment. In many emerging nations whose land registration laws and procedures are still a work in progress, where a good fraction of the population is still in agriculture, and where occupation of land is important to the cultural fabric of society, MNCs have found difficulty in acquiring land and getting clear title to real estate. In some cases, ongoing resistance by former residents, displaced by the foreign firm’s operations, have resorted to blockages and protests (Oh & Oetzel, 2017; Beckert, Dittrich & Adiwibowo, 2014). Moreover, host country government often impose more restrictive property ownership regulations for foreign firms. Thus, being an MNC implies high liability and difficulty in acquiring property in emerging markets. In India, for example, after violent protests affected foreign investors in extractive industries and agribusiness, the Modi government took steps to simplify and clarify property registration procedures (Mukerji, 2017). A subset of FDI is acquisition of already-existing local operations. However, majority of FDI that goes to emerging nations is not by acquisition, but “greenfield” (where property must be purchased and registered de novo). Even in the acquisition case, the new foreign investor has to apply to the local and state authorities to register their new ownership, a process that in several emerging countries is fraught with delays and difficulties. Hence, we argue that reducing the number of procedures, time, cost, and administration overheads involved in property acquisition and registration will positively reduce the initial cost of foreign investment and thus positively influence the FDI/GDP ratio for a country.

Hypothesis 2: Liberalization of procedures for registering property are positively associated with FDI inflows in emerging markets

4.3 Ease of getting credit

In the economics and finance literature, the variation of access to finance around the world is considered as an important institutional factor. The basis of this argument is that well-developed financial institutions enable firms to get easy access to credit that can help improve the mobilization and the allocation of resources (Beck et. al., 2000; McKinnon, 1973). International business scholars have found two
contradictory theories linking access to finance in host country and the borrowing behavior of the multinational company. The first perspective is that multinational company affiliates should be biased towards local borrowing for their capital needs for two reasons. First, local currency debt service costs can be netted out against local currency revenues so as to reduce foreign exchange exposure (Eiteman, Stonehill & Moffett, 2004). Second, local credit availability and borrowing substitutes for the foreign firm having to bring its own capital to the country, thus reducing the parent MNC’s exposure to country risk (Lehmann, Sayek & Kang, 2004). Under this viewpoint, ceteris paribus, the easier it is for to obtain local credit in the emerging country, the greater the inflow of FDI.

But there an alternative perspective that can lead to a counter hypothesis. Desai, Foley & Hines (2004) find that “Multinational affiliates are financed with less external debt in countries with underdeveloped capital markets or weak creditor rights…and) appear to employ internal capital markets…to overcome imperfections in external capital markets”. This is supported by Nguyen & Rugman (2015) who studied “British multinational subsidiaries in six emerging countries in the South East Asia … (and found that)… over 90% of financing sources (including capital investment by the parent firms) in the British subsidiaries come from internal funding.” Nguyen & Rugman (2015) then go on to assert that the capability of a MNC to generate internal (parent to subsidiary) funding for their subsidiary in emerging nations is a firm-specific asset (FSA) which not only makes the MNC indifferent to the availability, or difficulty, of obtaining external credit in an emerging country (the null hypothesis), but furthermore suggests a counter-hypothesis that, ceteris paribus, FDI flows to nations where obtaining credit is difficult, would actually be greater, since the MNC enjoys internal sources of funding that gives it an advantage over local firm competitors who are relatively starved for credit because of the nation’s institutional weakness in this regard.

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5 Rugman defined a “firm-specific asset” (FSA) as any internal capability that gave a firm an advantage over its rivals, including local competitors in the emerging nation in which they invest.
Since this particular question has not been tested before anywhere and *a priori* reasoning suggests divergent views, we submit both hypothesis and counter-hypothesis for empirical testing:

**Hypothesis 3a:** *The ease of obtaining credit and financial transparency is positively associated with FDI inflows an emerging nation receives in comparison with other emerging countries.*

And the counter-hypothesis:

**Hypothesis 3b:** *FDI inflows will be greater in emerging nations where obtaining credit and financial transparency are more difficult.*

### 4.4 Protection for minority investors

The next institutional or regulatory variable is the extent of protection given by the host country to minority investors. International Joint Ventures (IJVs) are commonplace in emerging markets and serve to mitigate the risks posed by institutional constraints in such nations (Henisz, 2000). IJVs exist either because of government mandates restricting foreign ownership, or are formed voluntarily (absent government restrictions) between local partners and MNCs who feel that the local help, reputation and insights provided by the local partner are worth the loss of some share of profits (Contractor, Lahiri, Elango & Kundu, 2014). We hypothesize that the protection of minority investment is an important regulatory factor that MNCs consider when entering an emerging economy. When the MNC is in a minority equity position, the host country’s protection of minority shareholder rights provides a safeguard for the foreign shareholder against appropriation and misbehavior by the local partners. and thus, should positively influence the FDI inflow the nation receives.

Of course, not all IJVs have the MNC as a minority partner. Even in cases where the MNC is a majority partner, or 100 percent owner of its affiliate, this variable continues to serve as a surrogate for the attractiveness of the nation as an investment destination, since protection of minority investors in a country suggests a financial and legal environment where all investor rights are better protected. Rajagopalan & Zhang (2007) describe how improvements in corporate governance in general, in China and India -- in matters such as curtailing the power of dominant shareholders, implementing government
monitoring systems, and requiring independent directors -- promote inward FDI, and foreign investors are willing to pay larger premiums for acquisition targets which are covered by better governance regulations.

Hence, we propose that a higher country rating of protection for minority investment is associated with higher FDI inflows.

**Hypothesis 4:** *Amongst emerging countries, a nation’s rating for protection of minority investment is positively associated with the FDI inflows it receives, ceteris paribus.*

4.5 Tax levels and compliance costs

The effect of tax regulations on multinational companies’ strategy have been widely discussed in the international business literature. The institutional escapism literature argues that tax rates and tax administration have motivated escape-based internationalization (Cuervo-Cazurra & Ramamurti, 2017; Witt & Lewin, 2007). The logical outcome of escape-based internationalization is that countries with low tax rates can attract more FDI. Empirical evidence has pointed out that tax havens and countries such as Ireland where corporate taxes are capped at 12.5 percent, receive FDI inflows disproportionate to their GDP (Kato, 2015). Moreover, there is some evidence that for the subset of nations that have signed tax treaties, FDI inflows subsequently increased (Bloningen & Davies, 2004).

A counter-argument stems from the international tax-avoidance skills of MNCs. Multinationals can marshal a variety of “transfer-pricing” techniques to shift taxable profits from high tax jurisdictions to lower tax countries (Gan & Qiu, 2019; Rugman & Eden, 2017) – in which case the “tax and tax compliance” variable should be non-significant. On the other hand, Muller & Kolk (2015) found, for example, that MNCs in India pay higher taxes than their local counterparts.

Since there is no evidence, one way or the other that, across the as many as 149 emerging nations, about the tax (rate and compliance) variable’s influence on FDI, we propose the as yet untested hypothesis below:

**Hypothesis 5:** *The more favorable a country’s rating for paying tax and compliance requirements the greater will be its FDI inflows compared with other emerging markets*
4.6 Trading across borders

Trade regulations should be a powerful influence on FDI decisions because trade and FDI are closely interlinked through supply chains or Global Value Chains (GVCs) that span many emerging nations. According to Lund et al. (2019) “Although a (iPhone) fits into the palm of your hand, it contains parts from as many as 200 separate suppliers in at least eight countries,” and “… today two-thirds of world trade is in intermediate inputs rather than finished goods and services.”

Today there is hardly any foreign affiliate that operates entirely locally (i.e. an affiliate where 100 percent of its costs and inputs are sourced locally and 100 percent of sales made locally). On the contrary, a study by UNCTAD (2013) concluded that in 80 percent of all world trade (amounting to around 21 Trillion in 2016), an MNC is either an exporter or an importer, on one side of the deal -- or participates as an orchestrator of a global value chain. Equally remarkably, the same MNC is frequently both the importer and the exporter, (i.e., simultaneously on both ends of the shipment), and intra-firm trade accounts for a large fraction of total world trade. For example, Lanz and Miroudot (2011) found that in 2009, 58 % of US goods imports from OECD countries were intra-firm. Hence FDI and trade are more or less two sides of the same coin and comprise an integrated global strategy. Without relative ease in moving goods or services in and out of an emerging country, FDI will not happen in most cases.

This regulatory variable covers aspects of international trade, such as capacity and congestion in ports, the time or delays in moving cargo through the country’s ports, the number of forms and procedures required to be fulfilled, as well as the quality of internal transport infrastructure between the factory and ports. For example, the speed of cargo handling and bureaucratic clearance (number of forms, delays, tariffs, and other impediments) at Thai and Sri Lankan ports is much faster than in India (Prasad, Sathish & Singh, 2014). In global value chains, tightly scheduled across many nations, and the logistics orchestrated by an MNC, it is imperative that delays (or port costs) in one country do not hold up a component critically needed for assembly in the next nation (Mangan & Lalwani, 2016). In fact, the entire global chain can be adversely affected by higher costs or delays in one nation. This is especially true in
“lean manufacturing” or “just-in-time” delivery requirements where the final assembly factory carries minimal inventory and foreign component suppliers can be penalized if there is even one day’s delay in shipment (Christopher & Peck, 2012). TCE concepts and be applied here, since negotiating terms with each foreign suppliers, or even worse, a “hold-up” or hostage risk in terms of the entire GVC being put in jeopardy, is a transaction cost (Antras & Chor, 2013).

This suggests that, when choosing between emerging nations as FDI locations, the ease or difficulty of conducting trade across borders is a crucial factor in influencing FDI decisions.

**Hypothesis 6:** The ease of ‘trading across borders’ variable is positively associated with FDI inflows in emerging markets

4. 7  **Rule-of-law or contract enforceability**

Another institutional consideration for MNCs is the rule of law or contract enforceability. Transaction costs economics (TCE) has argued that relational contracting is an important economic consideration (Williamson, 1985). Strong rule of law in a nation helps prevent opportunistic behavior by actors involved in a market transaction (North, 1990; Williamson, 1985). Resource- and capability-based views also suggest that rule of law, such as protection of intellectual property rights, can shield the firm’s competitive advantage from imitation (Barney, 1991). Furthermore, profits earned by a MNE’s affiliate in a host nation diminish if it has to devote time and money to legal enforcement for the protection of resources and capabilities (Barney, 1991; Peteraf, 1993; Wernerfelt, 1984). This is especially important for the MNC whose “ownership” advantages comprise proprietary knowledge transferred to the host nation (Dunning & Lundan, 2008) and even more crucial when its intellectual property needs to be protected in the country with high legal costs (Dunning & Lundan, 2009).

In a world of outsourcing, where the value chain is sliced and fragmented over several nations, the ability to enforce a supply chain contract quickly is another issue that affects not only the nation where the contract was written but also has a knock-on effect in all other nations logistically linked in the global
supply chain (Contractor, Kumar, Kundu & Pedersen, 2010; UNCTAD, 2013). Antras and Chor (2013) show how ownership rights and enforcement of contracts are crucial considerations in outsourcing design.

In general, the time and cost to resolve a commercial dispute, as well as the overall quality of the judicial process are measured across countries in World Bank’s (2016) report on the ease of doing business: it took an average of 471 days to enforce a contract in India, while the same contract was enforceable in the US within 42 days. With local suppliers and partners, better contract enforcement reduces opportunistic behavior. It helps the MNC also in an agency problem with local managers, or fighting corruption cases (La Porta, Lopez-de-Silanes, Shleifer & Vishny, 1998). Each dispute or lawsuit entails a negotiation and incurs transaction costs.

There is only scattered empirical evidence for this in certain emerging countries. Staats & Biglaiser (2012) found a positive relationship between the quality of the rule-of-law and FDI inflows in Latin America, as did Canare et al. (2015) for APEC countries, Jadhav (2012) for BRICS countries, Mengistu & Adhakary (2011) for fifteen Asian countries. Lacking comprehensive evidence for all emerging nations, we will test this hypothesis across all emerging nations, that when a country’s rule-of-law or contract enforcement is better, ceteris paribus, it will attract more FDI.

**Hypothesis 7a:** The rule-of-law or contract enforcement rating is positively associated with FDI inflows in emerging markets

However, some literature also presents a cautionary counter-hypothesis. Studying FDI patterns in transitional economies, Meyer (1998) and Hewko (2002) suggest that MNCs in emerging nations may be either indifferent to the rule-of-law question, or may even be willing to trade-off poor contract enforceability in return for greater economic opportunities and profit capture that such environments enable. Hewko (2002) reminds us that “…not all foreign investors are created equal. Investors from different countries have varying degrees of tolerance for imperfections in the host state legal system, and
they bring to the table a variety of values, perspectives, and practices.” Furthermore, Hewko (2002) states that in MNC strategic thinking as to which countries to select to establish an affiliate, they do a “...risk-reward analysis: the higher the perceived potential rate of return on a given investment, the more investors were willing to look past deficiencies in a given country’s legal system.” Meyer (1998) and Hewko (2002) implicitly suggest that when an emerging nation has a weaker rule-of-law, that country may present MNCs with better profit capture opportunities, which may actually attract investment to such weaker rule-of-law countries. If so, this leads to the counter-hypothesis:

**Hypothesis 7b:** The rule-of-law or contract enforcement rating is negatively associated with FDI inflows in emerging markets

### 4.8 Resolving insolvency

Recently, there has been a greater focus on exit-related regulations, -- the speed and ease of firm’s insolvency -- and how this affects and the entry decision of multinational company. Lee, Peng & Barney (2007) and Sauvant (2016) theorize that firms are more likely to enter a businesses or country where bankruptcy laws allow an efficient exit. For example, Indian bankruptcy rules and regulations used to make it extremely difficult for firms with over 100 employees to exit the market. Firms had to pay their employees even when they ceased operations. Kang & Nayar (2004) indicate that the time taken to resolve bankruptcies ranged from 6.5 – 11 years. To the extent that a country’s bankruptcy rules and regulations require large settlements for labor and other stakeholders, that also leaves little residual value for shareholders.

We hypothesize that when insolvency regulations make it more costly for firms to exit the business or the country, the risk of overall loss is heightened, and thus lower the incentive to enter the country in the first place. Large MNCs assess the risk of being embroiled in a country where it is difficult to

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6 Larger US MNCs may feel constrained by their home-country ethics laws such as the Foreign Corrupt Practices Act. But we cannot take a US-centric perspective in a large-data-set empirical study covering 120 to 149 host emerging nations that are receiving FDI from all manner of source countries
disengage. “Footloose” multinationals, especially those in price-sensitive GVC segments, value easy exit and flexibility -- as political risk or foreign exchange changes render a source nation risky or uncompetitive (Alvarez & Görg, 2009).

The net present value (NPV) estimated in the beginning when a MNC is contemplating a foreign investment includes, for the end year, a projected residual value of its businesses. If a country’s rules and regulations governing liquidation of businesses make the liquidation proceedings too protracted and costly, that can significantly reduce NPV. Comparing countries cross-sectionally, Klapper, Amit and Guillén (2010) highlight the importance of (both) sound entry as well as exit regulations in company formation.

While it may sound strange to argue that the shadow of eventual termination of a business can influence the beginning entry decision, this factor has, in fact, been discussed by government and multilateral bodies. For example, UNCITRAL (United Nations Commission on International Trade Law) and Sauvant (2016) propose a “model law” for cross-border insolvency (Mannan, 2015). The World Bank has been urging governments to tackle reforming their bankruptcy laws (Cirmizi, Klapper, & Uttamchandani, 2012) to thereby make their countries more attractive to FDI. But this has not been tested cross-sectionally across all emerging nations. Hence,

**Hypothesis 8:** In an emerging country that makes it easier and less costly to resolving insolvency and business exit, the greater will its FDI inflow, relative to others.

As noted, a few of the eight hypotheses may appear intuitive. But the fact is that they have not been comprehensively tested across all emerging countries and results will show which of the eight variables are statistically significant, thus providing both multinationals, as well as governments, a better idea as to which factors more powerfully influence or deter FDI, to these nations.

5. **Methods**

5.1 **Data Sources**
The World Bank’s ‘Ease of Doing Business’ (EoDB) index covers major regulatory areas. Hundreds of executives, officials, bankers, and lawyers are carefully surveyed each year, using a standardized format, minimizing subjective opinions, on (i) costs of complying with a regulation, or loading a container at a harbor, (ii) time or number of days delay till approvals are granted, or cargo moved through ports, (iii) effectiveness of legal recourse, (iv) number of forms or procedures, and so on. To the extent possible, objective measures are obtained from the best authoritative sources are used, which enable valid comparisons across emerging nations in the survey. We use eight major EoDB subcomponents as explanatory variables.

The World Bank’s survey data cover all business investment, both local and foreign, across the surveyed countries. How applicable are these measures to FDI in particular, as opposed to local parties starting a business? Anderson & Gonzalez (2012) find a strong correlation. For example, the correlation between the cost of starting a local company and the cost of starting a foreign subsidiary is 0.81. Therefore, we are confident that the variables reported in the EDB dataset can be used in our study covering FDI as a dependent variable.

There is no standard or consensus definition of what constitutes an “emerging country.” Our study uses two classifications, (1) 149 emerging countries as classified by the IMF, and (2) 120 countries comprising the World Bank’s middle-income and low-income group. It would be useful to see if the results remain consistent across both the 149 and 120 emerging country classifications. The World Bank started compiling the ‘ease of doing business’ surveys in 2004 and the data in our sample covers 12 years from that date. The dependent variable, FDI inflows and control variables covering other economic and social indicators are primarily drawn from the World Bank’s World Development Indicators7 database.

5.2 Dependent Variable

Our dependent variable is the ratio of FDI inflows as percentage of gross domestic product (GDP) across 149 developing countries for each of 12 years, which adjusts for different sizes of each emerging economy.

5.3 Explanatory Variables

The eight principal independent variables – tracking the business environment in each (emerging) country – corresponding with our eight hypotheses are summarized in Table 1:

(i) Procedures, time, cost to start a business,
(ii) Registering property, which includes steps, time, and cost in registering real estate property,
(iii) ease of getting credit, which measures the strength of credit reporting system and the effectiveness of collateral and bankruptcy laws in facilitating lending to private sectors,
(iv) Protection for minority investors through regulations and the legal system, and in general the quality of corporate governance, separation of ownership and control, disclosure obligations and the extent of director liability,
(v) Efficiency of the tax system as well as overall tax rates, tracked by the number of tax payments per year, time needed to file returns, complete tax audits, and obtain tax refunds as well as total tax rates,
(vi) Ease or difficulty of trade across the country’s border, measured by the number of documents, procedures, time and cost to export as well as time and costs to import goods from foreign countries,
(vii) Contract enforcement measured by the efficiency of the legal system in resolving commercial disputes, time and costs to enforce contracts as well as the quality of judicial process, and finally
(viii) Resolving insolvency, measured by the effectiveness of insolvency laws and administrative procedures in the insolvency process.
In the World Bank’s scaling, a maximum of 100 represents a theoretical ideal ‘frontier’ representing the theoretical best institutional practice, whereas 0 represents the worst. Actual scores for each nation fall between these two extremes.

----Insert Table 1 about here----

5.4 Control Variables

The control variables include gross domestic product growth, GDP per capita, gross capital formation, private credit to GDP, real interest rate and exchange rate. Our regression models will have two versions -- one with institutional variables alone, to test our eight hypotheses, and then another that adds control variables. (That way we can assess the impact on FDI inflows of institutional factors, versus socio-economic factors).

Among control variables, faster GDP growth could attract FDI to fast-growing economies. Gross capital formation may send a positive signal to foreign investors. In some past studies, financial development, as measured by the ratio of private credit to GDP has been correlated with FDI inflows (Edison, Levine, Ricci & Slok, 2002. Another indicator for the efficiency of domestic financial markets is the real interest rate in each emerging nation. High interest rates can inhibit foreign firms’ access to capital in host countries. We also include GDP per capita as proxy for average consumer purchasing power. Bloningen (1997) finds that since FDI entails the acquisition of local assets, the MNC’s cost of acquiring assets in the home country is lower following a devaluation of the local currency.

In addition to economic factors, we also include a human development index (HDI) tracking the level of health and education. Data are drawn from the United Nations Development Program (UNDP).

Lastly, we also control for time-effects by including year-dummies in our model to control for unobserved shocks (such as financial crises) that could happen within the period under study.

5.5 Econometric Modeling

We used multilevel mixed (or hierarchical) panel regression method that contains both fixed and random effects, where cross-sectional observations are grouped based on time-invariant shared criteria. Time-
invariant factors, such as location, can have an effect on time-variant variables (e.g. regulations and FDI). However, the standard fixed-effect model fails to account for time-invariant factors. The fixed effect is estimated directly in the model, while random effects are summarized in terms of their estimated variances and covariance. For example, in the case of country-level observations, individual countries can be grouped into geographical locations, which may have effect on both institutions and FDI per capita. Geographical location, however, cannot be included in the fixed-effect estimations because it does not change over time.

Also, fixed-effect models can estimate only within effect estimations, but nothing can be said about between effect, and general effects. Furthermore, fixed-effect panel methods often fail to estimate the effect of a rarely changing variable. For example, Beck & Katz’s (2001) study to estimate the effect of democracy, (which does not rapidly change over time), on the peace (or war) between two countries found that estimates obtained under fixed-effect failed to show any association between democracy and peace because fixed-effect removes all the effects of unchanging, time-invariant variables from the model. The likelihood-ratio test obtained from multilevel mixed panel data can serve as an indicator to select between fixed-effect or multilevel mixed with random effect. If the likelihood-ratio (LR) test is statistically significant ($p<0.05$), then multilevel mixed models with random effect offer significant improvement in results compared to fixed-effect models (Hamilton, 2013)

We use geographic region as the basis for grouping in our hierarchical model. Geographic region does not change over time and it may influence the magnitude of FDI. For example, countries in East and Southeast Asia on average receive more FDI inflows than countries in Sub-Saharan Africa. We grouped countries in our observation into five regions: (i) East and South Asia & Pacific (ii) Europe and Central Asia (iii) Latin America (iv) Middle East and North Africa (v) Sub-Saharan Africa -- following the World Bank’s regional classification.

6. Results

6.1 Stationarity test, descriptive statistics, and correlation matrix
A stationarity test, on time series data, checks to see if the underlying factors driving the model and its statistical properties with time (e.g., autocorrelation, variation, etc.). We performed the Fisher test, based on augmented Dickey Fuller, to examine the stationarity of the time-variance element of dependent variables and all institutional variables. The null hypothesis for stationarity test is that at least one cross-section data (one country out of 149 countries) has a unit root, while the alternative hypothesis is that data are stationary. Results from the Fisher test all show that the p-value of Fisher test (in Table 2) is smaller than 0.05, thus dependent variable and all institutional variables do not contain unit root.

Table 3 exhibits descriptive statistics for each of variables in this study. Correlation coefficients are shown in Table 4. We find high correlation between HDI and gross capital formation ($\rho = 0.857$). But these are two quite different factors. While HDI is a proxy for human capital, gross capital formation measures financial investment.

6.2 Regression results

Regression results are seen in Table 5, in two categories. First, using data on 149 countries classified by the IMF as “emerging.” Second, we run the same econometric specification on the World Bank’s low and middle-income countries –120 emerging countries. The dependent variable in all runs is the FDI/GDP ratio.

6.2.1 Model (1) - IMF data

Using the IMF classification of 149 emerging nations, we find that starting business regulations has statistically significant effect on FDI inflows/GDP ($p <0.01; \beta = 0.027$), while registering property is not statistically significant ($p >0.10; \beta = -0.008$). We find that getting credit is statistically significant, but its coefficient is negative ($p <0.01; \beta = -0.028$) which supports Hypothesis 3b. Moreover, we find regulations that protect minority investments is associated positively with FDI/GDP ($p <0.01; \beta = 0.028$).
However, taxes and compliance, contract enforcement and resolving insolvency have no statistically significant effect on FDI inflows/GDP. Furthermore, the trading across borders score has a significant effect on FDI inflows/GDP and its coefficient is positive ($p < 0.01; \beta = 0.022$).

6.2.2 Model (2) - IMF data

When we include control variables into econometric specification presented in column 1, we again find that starting business regulations has a statistically significant effect on FDI inflows/GDP ($p < 0.01; \beta = 0.039$), indicating support for hypothesis 1. Registering property is now weakly significant ($p < 0.10; \beta = -0.017$) but with a negative coefficient. The getting credit score remains significant with a negative coefficient ($p < 0.01; \beta = -0.027$) which again supports hypothesis 3b. We find regulations that protect minority investments remains statistically significant with positive coefficient ($p < 0.05; \beta = 0.022$), which indicates that stronger protection for foreign investors with minority stakes through IJV is positively associated with FDI inflows. Thus, hypothesis 4 is supported. Taxes regulations and compliance is now statistically significant and with positive coefficient ($p < 0.05; \beta = 0.019$), indicating support for hypothesis 5. Similarly, trading across borders regulations maintains its significant effect on FDI inflows/GDP ($p < 0.01; \beta = 0.023$). This finding reinforces the hypothesis that from the MNC’s perspective trade and FDI are two sides of the same coin. Hence, hypothesis 6 is supported. Contract enforcement regulations and resolving insolvency are statistically significant, and their coefficient is negative ($p < 0.01, \beta = -0.034; p < 0.01; \beta = -0.026$, respectively). These findings support hypothesis 7b but not 8, respectively. These regression results indicate that countries that have more efficient regulations in starting business, stronger protection of minority investment, more efficient taxes and trading across border regulations are associated with greater FDI inflows/GDP. On the other hand, a higher score in registering property, getting credit, contract enforcement and resolving insolvency is associated with smaller FDI inflows/GDP.

6.2.3 Model (3) - World Bank data
It was gratifying to find generally consistent results from both the IMF and World Bank sample (120 countries classified as low and middle-income nations. We find that starting business regulations, protection of minority investment, and trade across borders indicators have statistically significant effect on FDI inflows/GDP. Registering property, ease of getting credit, taxes regulations, and resolving insolvency are not statistically significant in this model. Taxes regulations and administration is not statistically significant, but its coefficient is positive. Contract enforcement is statistically significant, and its coefficient is negative.

6.2.4 Model (4) - World Bank data

Including control variables, we again find that starting business regulations has a statistically significant effect on FDI inflows/GDP. Registering property and taxes regulations is not statistically significant, while getting credit is significant but its coefficient is again negative, supporting hypothesis 3b. We find regulations that protect minority investments is statistically significant with a positive coefficient, which provides support for hypothesis 4. Trading across borders regulations maintains its significant effect on FDI inflows/GDP, which supports hypothesis 6. On the other hand, contract enforcement is statistically significant with negative coefficient, thus supporting hypothesis 7b. Resolving insolvency is significant with negative coefficient, thus contradict hypothesis 8.

6.2.5 Robustness check

We tested for a potential reverse-causality relationship between FDI inflows and regulatory factors, by using independent variables lagged by one year while maintaining the current value of the dependent variable FDI/GDP.

----Insert Table 6 about here----

The results from the multilevel mixed method using lagged variables are for the IMF data in the first column, and World Bank data in the second column. The Robustness Test in Table 6 shows that (a) even after time-lagging the explanatory variables, the results do not change and (b) there are no
appreciable differences in the results for emerging countries as classified by the IMF versus the World Bank classification.

Incidentally, comparing our results with Contractor et al. (2020) who tested somewhat different variables on both advanced as well as emerging nations, the findings in this paper (which covers only emerging markets) are consistent in only two variables: more FDI is attracted when trade across borders and FDI entry conditions regarding registering property are easier. Other variables are either non-significant or show opposite conclusions, something discussed below.

7. Discussion

7.1 Policy and managerial implications

The results have significant policy conclusions for governments hoping to attract FDI, as well as for the strategic planning departments of MNCs, suggesting that out of the eight regulatory and institutional variables, three stand out and are uniformly supported. Countries that have better regulations and institutional climate for (a) starting businesses, (b) protection of minority investors and (c) ease of trading across their borders, have received greater FDI inflows/GDP. We also find counter-intuitive evidence for the impact of ease of getting credit and contract enforcement on FDI inflows, which we discuss below.

The starting of a new business in an emerging nation is an entry barrier, or transaction cost, to both large and small multinationals. The number of procedures, time and cost of entry are inhibiting factors. Bureaucratic requirements, and delay have often frustrated prospective investors. As a result, in the past few years, several emerging countries have designated sectors where “automatic approval” is granted for FDI. An example is India, where in the 1990s FDI applications would be held up for one year or longer, but are now considered “automatic” in a range of industries (Singh, 2010). We should also not forget that since the turn of the millennium, there has been a huge increase in the number of small MNCs, or “born-globals” for whom foreign market entry barriers loom larger than for big multinational companies

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8 This variable was not included in the Contractor et al. (2020) study.
(Cavusgil & Knight, 2015). For smaller MNCs, easing of foreign market entry barriers are particularly significant. This variable also received partial support in two of the four models in Contractor et al. (2020).

Another institutional variable, statistically significant in all four regression models, was protection of minority investor interests, of especial interest to MNCs in emerging countries because (a) the incidence of international joint ventures (IJVs) is greater in emerging markets to start with, (b) there are greater risks posed by institutional constraints in such nations (Henisz, 2000) or (c) due to still-remaining government mandates restricting foreign ownership percentages in some countries that favor local partners. Even absent government restrictions, some MNCs go in for an IJV as opposed to a fully-owned subsidiary because the local help, reputation and insights provided by a local partner are worth the loss of some share of profits (Contractor, Lahiri, Elango & Kundu, 2014). In shared-equity cases, the protection of minority shareholder rights is of direct consequence and obviously important in affecting the FDI inflow a nation receives. However, one can argue that even in cases where the MNC is a majority or 100 percent owner of the foreign subsidiary, stronger protection of minority investors is a signal of effective institutional and financial governance and support for foreign investors, in general. That is to say, a government that has bothered to enact regulations to monitor minority investor interests is also likely to be a government which promotes fair play for all investors.

The third policy variable, strongly significant across all four models, is the ease with which a MNC can move goods and services across the country’s borders, measured by capacity and congestion in ports, the time or delays in moving cargo through a country’s ports, the number of forms and procedures required to be fulfilled, as well as the quality of internal transport infrastructure between the factory and ports. There are vanishingly few MNCs that source entirely locally and confine sales just to the host nation. Most are part of a supply chain or Global Value Chain (GVC) and depend on imported components and materials, and/or export part of the affiliate’s output to global markets. For many emerging countries, their role in a global supply chain (based on low-cost labor or other inputs) is the principal attraction for FDI. A study by UNCTAD (2013) concluded that an astonishing greater than 75 percent of all world trade
(totaling around 21 Trillion in 2016) involved a MNC either as an exporter from the country or an importer. In several industrial sectors “just-in-time” delivery requirements are so stringent that even the slightest delay is not just a local ‘transaction cost’, but worse, can badly affect the entire global value chain in several other countries where assembly takes place (Antras & Chor, 2013). A particularly poignant example is the comparison between the two largest emerging nations, India and China. So far, India hardly participates in global value chains (GVCs) despite lower labor costs than China’s (India’s average hourly labor rate in manufacturing is estimated at $ 0.92 compared with China’s average of $ 3.5 to 4.0 per hour). Nevertheless, India’s merchandise exports in 2016 were a mere 272 billion, compared with China’s 2,011 billion because of India’s institutional and regulatory barriers, as well as infrastructural deficiencies and protracted procedures at ports, compared with China’s explicit facilitation of trade, and modern infrastructure. Thus, ease or facilitation of trade across the country’s border is a crucial institutional policy variable for governments to address.

7.2 Theoretical implications

This study contributes to the institutions-based view in international business, specifically by examining how institutional factors in emerging markets influence the FDI inflows. Our theoretical approach acknowledges the complexity and the multidimensionality of business regulations, and therefore goes beyond the effect of intellectual property rights or rule of law in explaining the FDI decision. In doing so, we bring insights from the studies on global supply chains and liability of foreignness to predict the FDI flows to emerging economies. We argue, and find, that regulations on starting business, trade across borders, and governance of the firm (particularly the protection of minority investment) influence the extent of FDI inflows to emerging economies.

7.3 Fodder for future studies

On two hypotheses, namely the ease of getting local credit or loans (H3), and the rule-of-law or contract enforcement (H7), the coefficients had a negative sign, supporting the counter-hypotheses. The result for counter-hypothesis 3 implies that MNCs are marginally more likely to invest in countries where
credit is *more* difficult to obtain and where local companies are constrained for local financing. (In the Contractor et al. 2020 paper, covering all countries, this variable was non-significant). This seemingly puzzling finding is tentatively explained by Desai, Foley & Hines (2004) and Nguyen & Rugman (2015) who show that MNCs in general enjoy home country, or parent, or global sources, of financing which they can bring to the host country when investing. This leads to the idea that credit constraints on local firms in some emerging nations, can give an MNC a slight competitive advantage (over local rivals) because MNCs are less dependent on local sources of financing. This explains the negative sign for the coefficient although this novel finding deserves further research.9

With regard to the negative coefficients for the rule-of-law or contract enforcement and resolving insolvency, there may be several explanations, peculiar to emerging nations (as compared to the Contractor, et al. 2020 study that covered all countries). First, the foreign firm, in emerging market settings with weak regulatory institutions, wields an international reputation and political influence in the host nation that can transcend or circumvent rule-of-law shortcomings in the country especially if such a host emerging nation also provides higher profit capture because of weaker competition.10 There are a couple of prior studies that support this idea. Perkins (2014) implies that MNCs, with experience in similar emerging countries, learn how to cope with such institutional voids and navigate around them. Hewko (2002) states that from the MNC’s “…risk-reward analysis: the higher the perceived potential rate of return on a given investment, the more investors were willing to look past deficiencies in a given country’s legal system.” Meyer (1998) studying transitional economies of East Europe, drew the same conclusion, given the weak institutional conditions in those nations following the fall of Soviet Communism.

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9 Of which there is vanishingly little in the Finance or International Business literature.

10 Superficially, this may seem to argue the opposite to the “Liabilities of Foreignness” literature in international business studies (e.g., Kostova & Zaheer, 1999 or Zaheer, 1999). But in reality there is no contradiction since MNCs can simultaneously face adverse discrimination or liabilities on certain institutional variables because of their ‘foreignness’ while at the same time, the MNC’s ‘foreignness’ confers on it special advantages on other institutional variables in an emerging nation context.
Linking the control variables (admittedly not the principal hypotheses) with the main results, *ex post*, we see in Table 5 that poorer, faster growing, emerging countries attract more FDI in proportion to the size of their economies. That is to say, their FDI/GDP ratio is higher. But the poorer emerging countries are likely ones with inferior regulatory institutions, which afford to MNCs higher profit capture opportunities, because competition is such markets is weaker and deficiencies in rule of law and difficulties in exit (or insolvency) also adversely affect local competitors.

These findings in this paper, and the *ex post* hypotheses they suggest, deserve further research that brings in data on the profitability of MNC and local companies in emerging nations, if such data exist (something that, anyway, our data set does not cover). Further research could also probe the direction of causality, both empirically, as well as in game-theoretic terms. Does a weak rule-of-law, or difficulty in exiting from an emerging nation, constitute something that MNCs may *overlook* given profit capture opportunities in that country? Or does the negative sign imply causality or strategic action, in the sense that MNCs experienced in investing in emerging nations will actively *seek out* and invest in nations with weaker judicial institutions and less intense competition (Perkins, 2014)? Another *ex post* hypothesis is that the dependent variable, the FDI/GDP ratio, is higher in emerging nations with weaker rule of law, simply because emerging countries with smaller GDPs (the denominator of the above ratio) are also characterized by weaker contract enforcement. Or that in the lower-GDP emerging countries with weaker legal systems, the MNC wields greater influence or political clout (compared with local firms) -- which clout partially substitutes for rule of law. The theory of economic regulations (e.g., Becker, 1983) dealt with the lobbying clout of companies, in influencing and shaping legislation. However, the same concept relating to clout or influence can apply to MNCs in smaller or weaker emerging countries. These *ex post* hypotheses are fodder for future research.

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11 To address this question would also require qualitative research and case studies as to whether some MNCs merely overlook weak judicial strength in a prospective emerging nation they wish to invest in, versus whether this is a factor *consciously* included in their search process.
Another ex post investigation for future research would address the question, “Are all emerging countries the same?”, with the obvious answer “They are not.” Within the 149 (IMF) or 120 (World bank) nations classified as “emerging” lies a huge variation. In 2016, the World Bank classified low-income economies as those with a GNI per capita of $1,025 or less in 2015; lower middle-income economies as those with a GNI per capita between $1,026 and $4,035; and upper middle-income economies as those with a GNI per capita between $4,036 and $12,475. Looking at different categories of emerging countries is really a subject for a further study, but as a quick ex post test in this exploratory study, we disaggregated the “Ease of Trading Across National Borders” variable into three income categories within emerging markets. As seen in Appendix B it is only in the higher income group amongst emerging nations that improving trade infrastructure and trade documentation procedures has a positive impact in attracting more FDI, something hinted at in Wu & Goh (2010). We hope this study will lead to more detailed fine-grained analysis of this sort, differentiating between groups of emerging countries.

8. Conclusions

The larger backdrop of this paper is that over the last three decades, especially since the ascent of Deng Xiaoping and the collapse of East European communism, government policies in emerging nations have turned from restricting or prohibiting incoming foreign investment to welcoming it by introducing regulatory reforms that ease the entry and establishment of MNCs, protect shareholder interests, facilitate trade (that typically accompanies an FDI) – and, in general, reduce the cost and risk of an MNC’s investment. The UN “Investment Policy Monitor” has been compiling data on country policies regarding FDI, which shows that liberalization, or removal of regulations, has occurred, on average, four times more frequently than instances where new restrictions were placed on FDI. It is not overstating it to say that a sea-change in policies has occurred over 25 years since the 1990s. Countries now generally

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12 (See Appendix A and UNCTAD, 2017)
welcome FDI by trying to improve their business environment. However, the question then arises, “Which of the above eight factors should governments and MNCs concentrate upon? The results in this study identify the more important subset.

Furthermore, we argue that there a two-step procedure when a MNC select which country to invest in: (i) MNC can compare the institutional environment across all emerging nations, using country rankings such as the World Bank’s Ease of Doing Business rankings and then (ii) examine the sub-set or short list of selected countries for a more detailed look at each country’s sub-indicators to see how they will “fit” the MNC’s strategy. For example, while some MNCs view FDI as a means of accessing foreign customers, others are concerned about efficiency-seeking, which often means using an emerging nation as an “export platform” (Dunning & Lundan, 2008; Moghaddam et al., 2014). Even in a local-market-seeking strategy, the local FDI affiliate depends on some imported components. Hence the ease which with goods and components can be traded across the country’s borders is an important focus. For MNCs, building efficient supply chains or value chains (GVCs) by having quick and efficient movement through the emerging nation’s harbors, airports, and roads is hypothesized to be an important investment criterion – as indeed it proved to be the case in the statistical results.

REFERENCES


Table 1: Major Components of the World Bank’s ‘Ease of Doing Business’ Index

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Description</th>
<th>Theories/Concepts Used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Starting a business</td>
<td>Procedures, time, cost and paid-in minimum capital to start a limited liability company</td>
<td>Institutions-based view / institutional economics</td>
</tr>
<tr>
<td>Registering property</td>
<td>Procedures, time and cost to transfer a property and the quality of the land administration system</td>
<td>Institutions-based view and the International Business concept of “liability of foreignness.”</td>
</tr>
<tr>
<td>Getting credit</td>
<td>Collateral laws and credit information systems</td>
<td>Institutions-based view; financial economics; firm-specific advantages (FSAs)</td>
</tr>
<tr>
<td>Protecting minority investors</td>
<td>Minority shareholders’ rights in related-party transactions and in corporate governance</td>
<td>Transaction cost economics; institutions-based view</td>
</tr>
<tr>
<td>Paying taxes</td>
<td>Payments, time and total tax rate for a firm to comply with all tax regulations</td>
<td>Institutions-based view, specifically institutional escapism literature</td>
</tr>
<tr>
<td>Trading across borders</td>
<td>Time and cost to export the product of comparative advantage and imports</td>
<td>Global Value Chains concept; footloose multinationals; MNCs as orchestrators</td>
</tr>
<tr>
<td>Enforcing contracts</td>
<td>Time and cost to resolve a commercial dispute and the quality of judicial processes</td>
<td>Transaction cost economics; institutions-based view; political science concepts</td>
</tr>
<tr>
<td>Resolving insolvency</td>
<td>Time, cost, outcome and recovery rate for a commercial insolvency and the strength of the legal framework for insolvency</td>
<td>Institutions-based view and global value chain concepts</td>
</tr>
</tbody>
</table>


Table 2. Fisher test for stationarity based on Augmented Dickey-Fuller

<table>
<thead>
<tr>
<th>Variables</th>
<th>Inverse chi-squared</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ln (FDI Inflows)</td>
<td>642.999</td>
<td>0.000</td>
</tr>
<tr>
<td>Starting Business</td>
<td>486.051</td>
<td>0.000</td>
</tr>
<tr>
<td>Registering Property</td>
<td>395.234</td>
<td>0.002</td>
</tr>
<tr>
<td>Getting Credit</td>
<td>705.754</td>
<td>0.000</td>
</tr>
<tr>
<td>Protecting Minority Interest</td>
<td>353.410</td>
<td>0.045</td>
</tr>
<tr>
<td>Taxes</td>
<td>393.583</td>
<td>0.002</td>
</tr>
<tr>
<td>Trade Across Borders</td>
<td>564.562</td>
<td>0.000</td>
</tr>
<tr>
<td>Contract Enforcement</td>
<td>748.423</td>
<td>0.000</td>
</tr>
<tr>
<td>Resolving Insolvency</td>
<td>380.526</td>
<td>0.007</td>
</tr>
</tbody>
</table>

Note: The null hypothesis is that at least one cross section has unit root, while the alternative hypothesis is that all cross section is stationary. The null hypothesis is rejected when the p-value of Inverse chi-squared < 0.05.
Table 3. Descriptive Statistics

<table>
<thead>
<tr>
<th>No</th>
<th>Variable</th>
<th>Obs</th>
<th>Mean</th>
<th>S. D</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>FDI inflows/GDP (%)</td>
<td>1,672</td>
<td>3.002</td>
<td>5.701</td>
<td>0.000</td>
<td>142.34</td>
</tr>
<tr>
<td>2</td>
<td>Starting business</td>
<td>1,932</td>
<td>69.340</td>
<td>19.048</td>
<td>1.470</td>
<td>99.860</td>
</tr>
<tr>
<td>3</td>
<td>Ease of registering property</td>
<td>1,815</td>
<td>59.146</td>
<td>19.001</td>
<td>0.000</td>
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</tr>
<tr>
<td>4</td>
<td>Ease of getting credit</td>
<td>1,815</td>
<td>44.010</td>
<td>22.015</td>
<td>0.000</td>
<td>100</td>
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<td>5</td>
<td>Protecting minority investment</td>
<td>1,693</td>
<td>47.552</td>
<td>13.923</td>
<td>10.000</td>
<td>86.670</td>
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<td>6</td>
<td>Taxes regulations and compliance</td>
<td>1,689</td>
<td>62.255</td>
<td>19.391</td>
<td>0.000</td>
<td>100.000</td>
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<td>7</td>
<td>Trade across borders</td>
<td>1,691</td>
<td>59.216</td>
<td>21.917</td>
<td>0.000</td>
<td>100.000</td>
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<td>Contract enforcement</td>
<td>1,932</td>
<td>53.252</td>
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<td>2.080</td>
<td>82.670</td>
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<td>9</td>
<td>Resolving insolvency</td>
<td>1,932</td>
<td>28.878</td>
<td>18.612</td>
<td>0.000</td>
<td>83.39</td>
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<tr>
<td>10</td>
<td>GDP growth (%)</td>
<td>1,700</td>
<td>4.469</td>
<td>5.753</td>
<td>-62.076</td>
<td>104.487</td>
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<tr>
<td>11</td>
<td>Ln (Gross capital formation per cap)</td>
<td>1,508</td>
<td>6.505</td>
<td>1.454</td>
<td>1.874</td>
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<td>12</td>
<td>Ln (GDP per capita)</td>
<td>1,683</td>
<td>8.839</td>
<td>1.652</td>
<td>6.108</td>
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<td>13</td>
<td>Financial development</td>
<td>1,596</td>
<td>38.525</td>
<td>34.134</td>
<td>0.802</td>
<td>311.984</td>
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<td>Real interest rate (%)</td>
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<td>Change in exchange rate</td>
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<td>Human development index</td>
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<td>0.662</td>
<td>0.149</td>
<td>0.294</td>
<td>0.955</td>
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Note: Calculations by authors, based on data available in the World Bank’s Ease of Doing Business Index and World Development Indicators
### Table 4. Correlation Matrix

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<td>0.202</td>
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<td>0.283</td>
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<td>12</td>
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<td>0.214</td>
<td>0.239</td>
<td>0.258</td>
<td>0.203</td>
<td>0.202</td>
<td>0.381</td>
<td>0.282</td>
<td>0.281</td>
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<td>0.753</td>
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<tr>
<td>13</td>
<td>0.096</td>
<td>0.331</td>
<td>0.147</td>
<td>0.359</td>
<td>0.399</td>
<td>0.278</td>
<td>0.468</td>
<td>0.273</td>
<td>0.218</td>
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<td>0.451</td>
<td>0.311</td>
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<td>14</td>
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<td>-0.055</td>
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<td>-0.177</td>
<td>-0.196</td>
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<td>-0.169</td>
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<td>-0.076</td>
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<td>-0.071</td>
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<td>0.362</td>
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<td>0.457</td>
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<td>0.660</td>
<td>0.428</td>
<td>-0.258</td>
<td>-0.129</td>
</tr>
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</table>

Notes: Numbering of variables in this table follow the numbering presented in Table 4. Correlation coefficient > |0.3| is significant at 90% confidence level.
### Table 5. Results from multilevel mixed panel data. Dependent variable: FDI inflows/GDP (%)

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>IMF classification</th>
<th>The World Bank classification</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
</tr>
<tr>
<td><strong>Main Ind. Variables</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Starting business</td>
<td>0.027*** (0.007)</td>
<td>0.039*** (0.011)</td>
</tr>
<tr>
<td>Registering property</td>
<td>-0.008 (0.006)</td>
<td>-0.017* (0.009)</td>
</tr>
<tr>
<td>Getting credit</td>
<td>-0.028*** (0.006)</td>
<td>-0.027*** (0.014)</td>
</tr>
<tr>
<td>Protecting minority inv.</td>
<td>0.028*** (0.008)</td>
<td>0.022** (0.011)</td>
</tr>
<tr>
<td>Taxes and compliance</td>
<td>0.008 (0.006)</td>
<td>0.019** (0.008)</td>
</tr>
<tr>
<td>Trade across borders</td>
<td>0.022*** (0.005)</td>
<td>0.023*** (0.009)</td>
</tr>
<tr>
<td>Contract enforcement</td>
<td>-0.005 (0.009)</td>
<td>-0.034*** (0.013)</td>
</tr>
<tr>
<td>Resolving insolvency</td>
<td>-0.008 (0.006)</td>
<td>-0.026*** (0.008)</td>
</tr>
<tr>
<td><strong>Control Variables</strong></td>
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<td></td>
</tr>
<tr>
<td>GDP growth</td>
<td>0.058* (0.034)</td>
<td></td>
</tr>
<tr>
<td>Gross capital formation</td>
<td>3.401*** (0.337)</td>
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</tr>
<tr>
<td>GDP per capita</td>
<td>-4.011*** (0.430)</td>
<td></td>
</tr>
<tr>
<td>Financial development</td>
<td>0.004 (0.006)</td>
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</tr>
<tr>
<td>Real interest rate</td>
<td>-0.012 (0.018)</td>
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</tr>
<tr>
<td>Change in exchange rate</td>
<td>0.006 (0.014)</td>
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</tr>
<tr>
<td>Human development index</td>
<td>3.994 (3.132)</td>
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<tr>
<td><strong>Random-effect parameter</strong></td>
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<td></td>
</tr>
<tr>
<td>S.D. (constant)</td>
<td>0.888 (0.307)</td>
<td>0.839 (0.316)</td>
</tr>
<tr>
<td>S.D. (residuals)</td>
<td>3.630 (0.068)</td>
<td>3.439 (0.086)</td>
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<tr>
<td>LR-test</td>
<td>48.01*** (0.068)</td>
<td>19.46*** (0.086)</td>
</tr>
<tr>
<td><strong>No. of observation</strong></td>
<td>1416</td>
<td>806</td>
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<tr>
<td><strong>Prob. Wald Chi-sq</strong></td>
<td>0.000</td>
<td>0.000</td>
</tr>
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</table>

Notes: ***,**, * denote 99%, 95% and 90% level of significance, respectively. We include time fixed-effect in each model, but for the sake of brevity, results of these dummy variables are not presented.
Table 6: Results from multilevel mixed panel data, with lagged independent variables

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>IMF</th>
<th>World Bank</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coeff.</td>
<td>S.E.</td>
</tr>
<tr>
<td><strong>Main Ind. Variables</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Starting business (t-1)</td>
<td>0.047** (0.021)</td>
<td>0.052** (0.022)</td>
</tr>
<tr>
<td>Registering property (t-1)</td>
<td>-0.003 (0.019)</td>
<td>0.027 (0.020)</td>
</tr>
<tr>
<td>Getting credit (t-1)</td>
<td>-0.040** (0.016)</td>
<td>-0.035** (0.017)</td>
</tr>
<tr>
<td>Protecting minority invt. (t-1)</td>
<td>0.063*** (0.023)</td>
<td>0.067*** (0.023)</td>
</tr>
<tr>
<td>Taxes and compliance (t-1)</td>
<td>0.012 (0.017)</td>
<td>0.002 (0.016)</td>
</tr>
<tr>
<td>Trade across borders (t-1)</td>
<td>0.051*** (0.018)</td>
<td>0.042** (0.018)</td>
</tr>
<tr>
<td>Contract enforcement (t-1)</td>
<td>-0.004 (0.027)</td>
<td>-0.038 (0.026)</td>
</tr>
<tr>
<td>Resolving insolvency (t-1)</td>
<td>-0.045** (0.019)</td>
<td>-0.046*** (0.017)</td>
</tr>
<tr>
<td><strong>Control Variables</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GDP growth (t-1)</td>
<td>0.226*** (0.067)</td>
<td>0.296*** (0.069)</td>
</tr>
<tr>
<td>Gross capital formation (t-1)</td>
<td>0.814*** (0.158)</td>
<td>0.732*** (0.322)</td>
</tr>
<tr>
<td>GDP per capita (t-1)</td>
<td>-1.836*** (0.589)</td>
<td>-2.216*** (0.657)</td>
</tr>
<tr>
<td>Financial development (t-1)</td>
<td>0.001 (0.012)</td>
<td>0.011 (0.012)</td>
</tr>
<tr>
<td>Real interest rate (t-1)</td>
<td>-0.038 (0.029)</td>
<td>-0.045 (0.031)</td>
</tr>
<tr>
<td>Change in exchange rate (t-1)</td>
<td>0.009 (0.007)</td>
<td>0.014 (0.008)</td>
</tr>
<tr>
<td>Human development index (t-1)</td>
<td>16.037*** (4.818)</td>
<td>12.380 (4.912)</td>
</tr>
<tr>
<td><strong>Random-effect parameter</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S.D. (constant)</td>
<td>0.831 (0.439)</td>
<td>0.738 (0.459)</td>
</tr>
<tr>
<td>S.D. (residuals)</td>
<td>6.713 (0.176)</td>
<td>6.426 (0.185)</td>
</tr>
<tr>
<td>LR-test</td>
<td>3.01**</td>
<td>2.75**</td>
</tr>
<tr>
<td>No. of observation</td>
<td>733</td>
<td>596</td>
</tr>
<tr>
<td>Prob. Wald Chi-sq</td>
<td>0.000</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Notes: ***,**,* denote 99%, 95% and 90% level of significance, respectively. We include time fixed-effect in each model, but for the sake of brevity, results of these dummy variables are not presented.
Appendix A

The figure below shows that, for the years 2002 to 2016, the number of liberalizing or FDI promoting regulatory changes averaged four times the number of changes that further restricted the entry of FDI. The data are compiled each year by UNCTAD’s Investment Policy Monitor department.


Continued on next page…
Appendix B

There is no standard definition of what constitutes an “emerging country” which is why this study used both the IMF and World Bank classifications (which produced more or less similar results).

However, as a follow up further analysis, if we disaggregate emerging countries by the three World Bank categories: (i) low-income GNI per capita of $1,025 or less in 2015; (ii) lower middle-income GNI per capita between $1,026 and $4,035; and (iii) upper middle-income GNI per capita between $4,036 and $12,475, we find ideas for future research.

![Graph: Marginal effect of income status on FDI Inflows](image1)

In the lowest income emerging countries, there is almost no positive effect of rising income on FDI Inflows. In the middle to higher income ranges, there is a positive relationship between income levels and FDI Inflows.

++++++++++++++++

For lower and mid-income emerging countries the effect of “trading across borders” on FDI Inflows is weak or even marginally negative. However, for higher income emerging countries, improving the “ease of trading across borders” has a strong positive effect in increasing FDI inflows.

This requires further research but a preliminary hypothesis is that most trading across borders (i.e. global value or supply chains) occurs in the higher income category of emerging nations.