

# FOREIGN INVESTMENTS IN EMERGING ECONOMIES: DO COMPETITION LAWS HELP OR HINDER?

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*The recent literature on the determinants of foreign direct investments (FDI) has missed to evaluate the role competition laws play in encouraging, or deterring, FDI inflows. The present study fills that gap by theoretically and systematically examining the effect of national competition laws on 155 emerging economies during the period 1970-2019. The findings provide strong evidence of a substantially positive relationship between competition laws and FDI inflows, even after controlling for other possible determinants of these capital flows. The results are particularly instructive for India's enactment of its Competition Act, 2002 and its subsequent positive effect on the country's foreign investment inflows. The findings and conclusions of this cross-country empirical study inform scholars and policymakers in developing and transition countries of the importance of competition laws in encouraging FDI in their economies.*

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## I. INTRODUCTION

Emerging economies, such as India, have for long depended on foreign investments<sup>655</sup> as a key factor in their economic growth and development strategy. This was particularly true after these economies embarked on an economic liberalization and globalization drive that started in the 1980s but gained substantial momentum in the 1990s and beyond. In India’s case, for instance, attracting foreign investments constituted a cornerstone in the package of economic reforms and liberalization that was championed in the early 1990s by the then Indian Finance Minister, Manmohan Singh. Similarly, China signaled its readiness to welcome foreign investors much earlier in the late 1970s and 1980s, as part of Chairman Deng Xiaoping’s drive to accelerate China’s economic development. Other emerging economies in Africa, Latin America, Central and Eastern Europe, and the rest of Asia displayed similar eagerness to amend their foreign investment laws or to institute new legislation to facilitate the entry of multinational corporations (MNCs) into their respective countries.

As well-documented in the relevant literature,<sup>656</sup> China has been the top recipient of this foreign investment largesse—for example, for the decade of the “roaring 1990s,” China led all emerging economies by a discernible margin, as presented in figure 1.<sup>657</sup> The average FDI China received in the 1990s dwarfs even its nearest fellow recipient, Brazil, by more than double. Overall, the

<sup>655</sup> In this study, foreign investments refer only to foreign direct investments (FDI) and does not include foreign portfolio investments (that is, investments in stocks and bonds). FDI is defined as “an investment reflecting a lasting interest and control by a foreign direct investor, resident in one economy, in an enterprise resident in another economy (foreign affiliate)” (UNCTAD, ‘2020 e-Handbook of Statistics—Foreign Direct Investment’ <<https://stats.unctad.org/handbook/EconomicTrends/Fdi.html>>).

<sup>656</sup> See, for example, Luo, Yadong, *Multinational Corporations in China: Benefiting from Structural Transformation* (Copenhagen Business School Press 2000); Joseph Johnson, Gerard Tellis, ‘Drivers of Success for Market Entry into China and India’ (2008) (72) *Journal of Marketing* 1-13.

<sup>657</sup> All FDI data used in this study are from the World Bank’s World Development Indicators database’s Oct 15, 2020 release.

decades since the 1970s witnessed noticeable increases in FDI inflows in almost all developing and transition economies.<sup>658</sup>

**Figure 1:** Top 20 FDI Recipients Among Emerging Economies (average for 1990-1999; in current USD billion)

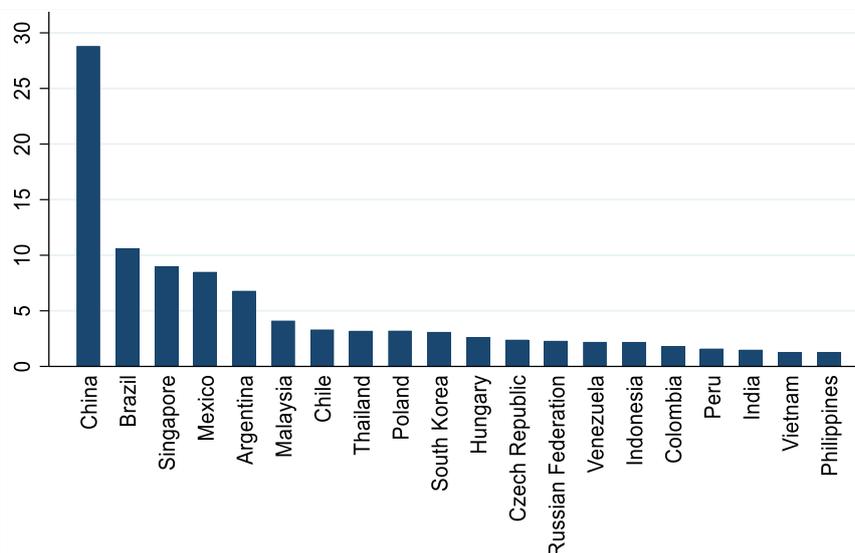
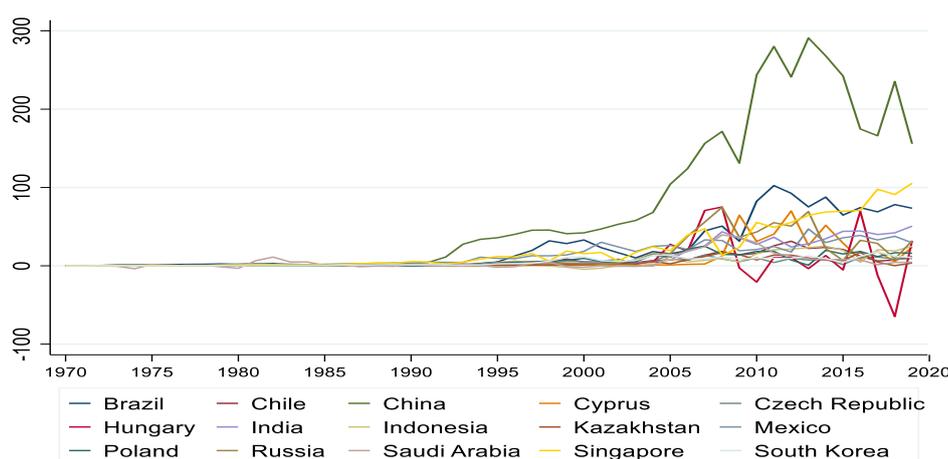


Figure 2 demonstrates this reality for the period 1970–2019, where the uptick in foreign investment inflows are more conspicuous starting from the 1990s. While China again leads this group of countries in receiving foreign investments, it is evident from figure 2 that almost all of the developing and transition countries managed to considerably increase their levels of FDI inflows, relative to the 1970s and 1980s.

**Figure 2:** Top 15 FDI Recipients Among Emerging Economies (average for 1970-2019; in current USD billion)



As

discussed in the relevant literature, many factors contributed to this flow of foreign investments

<sup>658</sup> The terms “emerging economies” and “developing and transition economies” are used interchangeably in this study.

to developing and transition economies.<sup>659</sup> This constantly growing literature on the determinants of FDI has identified many host-country economic and financial factors, such as economic size, as measured by either the gross domestic product (GDP) or the size of the population; the purchasing power of the population, as measured by the GDP per capita; the current rate of economic growth; macroeconomic stability, as measured by inflation; economic openness and business friendliness; taxes and wages; and the investment treaties signed. This line of research has also evaluated some non-economic factors pertaining to emerging economies, such as the nature of the political system;<sup>660</sup> political or country risk;<sup>661</sup> corruption and bureaucratic quality;<sup>662</sup> and political and social globalization.<sup>663</sup> This non-exhaustive list of factors analyzed and, in some studies, identified as determinants of FDI inflows demonstrates the extensive nature of this literature.

A gap that is, however, present in recent FDI literature is a systematic evaluation of national competition laws in emerging economies as a possible contributory factor that could possibly encourage, but may also deter, foreign investment inflows into such countries. This gap is particularly noteworthy since the need to evaluate the effects of competition policies, as a subset of government economic policies, on foreign investment inflows was highlighted a while ago.<sup>664</sup> Although many cross-country empirical studies evaluating this relationship were carried out since then, most are not recent and, collectively, returned mixed results.<sup>665</sup> Given this status of the recent FDI literature, coupled with the rapid and widespread adoption of competition laws by emerging economies in recent decades, it is both urgent and prudent to undertake a comprehensive empirical analysis focused on this large group of countries.

Very broadly, competition laws seek to keep markets competitive by providing a legal framework for the promotion of market competition, including the free entry of competitors, and the adjudication of anticompetitive business practices. In theory, therefore, the presence of national competition laws would be encouraging to foreign investors who are potential entrants and competitors in various markets in emerging economies. On the other hand, highly competitive markets might be a deterrent as the possibility of earning abnormal profits are *a*

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<sup>659</sup> For early surveys of most of this vast literature, see Bruce A. Blonigen, 'A Review of the Empirical Literature on FDI Determinants.' (2005) (33) *Atlantic Economic Journal* 383–403; and Ewe-Ghee Lim, 'Determinants of, and the Relation Between, Foreign Direct Investment and Growth: A Summary of the Recent Literature' (2001) (WP/01/175) IMF Working Paper <[https://www.imf.org/-/media/Websites/IMF/imported-full-text-pdf/external/pubs/ft/wp/2001/\\_wp01175.ashx](https://www.imf.org/-/media/Websites/IMF/imported-full-text-pdf/external/pubs/ft/wp/2001/_wp01175.ashx)> accessed 17 August 2020.

<sup>660</sup> Nouha Bougharriou, Walid Benayed, Foued Badr Gabsi, 'Under Which Condition Does the Democratization of the Arab World Improve FDI?' (2020) *Comparative Economic Studies* <<https://doi.org/10.1057/s41294-020-00140-1>> accessed 9 November 2020.

<sup>661</sup> Matthias Busse, Carsten Hefekar, 'Political Risk, Institutions and Foreign Direct Investment' (2007) (23) *European Journal of Political Economy* 397–415.

<sup>662</sup> H.N.Luu, N.M.Nguyen, H.H.Ho, V.H.Nam, 'The Effect of Corruption on FDI and its Modes of Entry' (2019) (11) (2) *Journal of Financial Economic Policy* 232–250.

<sup>663</sup> Raju Parakkal, 'Economic Returns from Social and Political Globalization: Does Signaling Help Developing and Transition Countries to Attract Foreign Direct Investment?' (2019) (13) (1) *ACTA VŠFS Economic Studies and Analyses* 8–28.

<sup>664</sup> Thomas L. Brewer, 'Government Policies, Market Imperfections, and Foreign Direct Investment' (1993) (24) (1) *Journal of International Business Studies* 101–120.

<sup>665</sup> For a brief review of these studies, see Joseph A. Clougherty, Nan Zhang, 'Foreign investor reactions to risk and uncertainty in antitrust: U.S. merger policy investigations and the deterrence of foreign acquirer presence' (2020) (52) *Journal of International Business Studies* 454–478.

*priori* absent. Against this theoretical backdrop and state of the FDI literature, the present study seeks to examine whether the presence of national competition laws in developing and transition countries help or hinder the inflow of foreign investments.

Arguably, part of the reason why the recent FDI literature has overlooked competition laws as a potential determinant is that the global spread of competition laws from the industrialized countries to developing and transition countries is a relatively recent phenomenon and has, therefore, received limited systematic and empirical evaluations concomitantly. This adoption of competition laws by developing and transition economies picked up major urgency in the 1990s and since then, “there has been a steady increase in the number of countries with national competition laws across the world”.<sup>666</sup> At the moment, there are over 100 countries with national competition laws that, for the most part, address the key elements of market competition and anticompetitive practices.<sup>667</sup> Consequently, it is imperative that research into the determinants of FDI inflows includes competition laws as a possible factor. This is especially so as a major objective for developing and transition countries to institute national competition laws was to accelerate their economic growth and development via the establishment of a market economy that was based on market competition and private property rights rather than state intervention.<sup>668</sup> Given those broad economic objectives, increasing FDI inflows was a key intermediary goal for emerging economies. The present study, therefore, empirically and systematically evaluates whether the instituting of national competition laws in these economies has, in fact, led to increased FDI inflows. As appropriate and relevant, this study also makes pointed references to the Indian economy and its experience with the Competition Act, 2002 and subsequent FDI inflows.

## II. COMPETITION LAWS AND FDI: THE THEORETICAL FRAMEWORK AND TESTABLE HYPOTHESES

As commonly understood, competition laws are meant to improve market competition and prevent anticompetitive practices. These laws are fundamentally about influencing economic behavior and business practices through the use of law.<sup>669</sup> The end goals are, however, varied, and range from the immediate goal of increasing consumer welfare<sup>670</sup> to the expansive goal of advancing economic development, the latter being of more relevance to developing countries. For instance, India’s Competition Act, 2002 begins by stating unequivocally:<sup>671</sup>

“An Act to provide, keeping in view of the economic development of the country, for the establishment of a Commission to prevent practices having

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<sup>666</sup> Raju Parakkal, ‘Political Characteristics and Competition Law Enactment: A Cross-Country Empirical Analysis’ (2011) (56) (3) *The Antitrust Bulletin* 609-629.

<sup>667</sup> *ibid.*

<sup>668</sup> Frank Emmert, Franz Kronthaler, Johannes Stephan, ‘Analysis of Statements Made in Favour of and Against the Adoption of Competition Law in Developing and Transition Economies’ (2005) (1) *Halle Institut für Wirtschaftsforschung* <<https://ssrn.com/abstract=2341766>> accessed 16 December 2020.

<sup>669</sup> Bruce M. Owen, ‘Competition Policy in Latin America’ (2003) (3) (003) *Stanford Institute for Economic Policy Research* <<https://papers.ssrn.com/abstract=456441>> accessed 17 December 2020.

<sup>670</sup> For a detailed examination of the goals of competition law, see Daniel Zimmer (ed), *The Goals of Competition Law* (ASCOLA Competition Law Series, Edward Elgar 2012).

<sup>671</sup> The Competition Act 2002.

adverse effect on competition, to promote and sustain competition in markets, to protect the interests of consumers and to ensure freedom of trade carried on by other participants in markets, in India, and for matters connected therewith or incidental thereto.”

While the end goals of competition laws might differ across jurisdictions, the core objective of ensuring contestable markets remains constant.<sup>672</sup> For most developing and transition countries, the goal of ensuring contestable markets meant the gradual yet certain shift to a free market economy. However, the attainment of contestable markets and a free market economy were not ends in themselves for most of these emerging economies. These were means to encourage those economic activities, such as foreign inward investments, that would propel these countries to higher levels of economic growth and development. However, it is also a fact that for many emerging economies, these laws were also legislations that allowed them to regulate any possible anticompetitive and welfare-reducing behaviors of foreign firms in their countries. Two national competition laws and their administrative structures are instructive in this context. Under the Russian competition law, “On the Protection of Competition”, and its administrative regime, the relevant enforcement agency is the Federal Antimonopoly Service, which is also the competent authority for handling filings under Russian laws on foreign investments.<sup>673</sup> Similarly, in the face of increased economic globalization and out of concern for the anti-competitive behaviours of foreign nations or corporations that could threaten the welfare of its consumers, the Korea Fair Trade Commission—South Korea’s competition authority—expanded its jurisdictional reach overseas at the turn of the century.<sup>674</sup>

The preceding discussion and examples of Russian and South Korean competition regimes provide important insights into the thinking of competition authorities regarding the relationship between competition laws and foreign investments. While the competition law and the concerned authorities wished to promote foreign investment inflows by providing conditions for free and fair competition in their domestic marketplace, there also existed an awareness of the need to ensure that a free market economy would not be hijacked by firms abusing their market power or engaging in anticompetitive business activities. This is because the presence of a free market economy, by itself, is not a guarantee for market competition. As argued in the relevant literature, “Without the right legal framework, a free market economy could see the benefits of competition reduced by anticompetitive behavior”.<sup>675</sup> In particular, the importance of competition laws in the presence of liberalized FDI regimes is underscored by the need to provide legal protection against anticompetitive investments and business

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<sup>672</sup> Note, however, that the *process* to achieve the core goal of ensuring contestable markets is debated across various jurisdictions, most notably between the U.S. and European ones. See William J. Kolasky, ‘What is Competition? A Comparison of U.S. and European Perspectives’ (2004) (49) (1) *The Antitrust Bulletin* 29-53.

<sup>673</sup> Stefan Weber, Tatiana Dovgan, Artem Kara, ‘Russian Federation: Merger Control’ (Noerr, 11 November 2018) <<https://www.mondaq.com/russianfederation/maprivate-equity/753690/merger-control>> accessed 6 February 2021.

<sup>674</sup> Youngjin Jung, Seung Wha Chang, ‘Korea 's Competition Law and Policies in Perspective Symposium on Competition Law and Policy in Developing Countries’ (2006) (26) (3) *Northwestern Journal of International Law & Business* 687.

<sup>675</sup> Emmert, Kronthaler, Stephan, ‘Analysis of Statements Made in Favour of and Against the Adoption of Competition Law in Developing and Transition Economies’ (n14) <<https://ssrn.com/abstract=2341766>> accessed 19 March 2021.

practices. For example, around the time when India's Competition Act, 2002 was beginning to get enforced many years after its enactment, the utility of competition legislation to effectively discipline a foreign corporation that became dominant on its own or managed to scuttle local competition through parent company mergers was noted by policy observers.<sup>676</sup>

The overwhelming theoretical arguments are, however, still in favor of competition laws being a motivator of FDI inflows. One argument that is often cited for the ability of competition laws to attract FDI is that MNCs, which are mostly from economically advanced countries that have a longer history of national competition laws, would find the business law environment in emerging economies to be a more familiar territory with the presence of competition laws.<sup>677</sup> It is further argued that competition laws would level the playing field between foreign and domestic firms, a matter of significant concern to MNCs.<sup>678</sup> For example, the presence of competition laws would constrain domestic firms in a particular industry to exploit their incumbent status to deter the entry of foreign firms.<sup>679</sup>

The importance accorded to competition laws to promote FDI flows is further evidenced in the historical efforts by regional trade and integration associations to emphasize the adoption of competition laws by member nations.<sup>680</sup> Such an emphasis has traditionally been at the heart of the European Union and its trade and market integration efforts. Similarly, the creation of the North American Free Trade Agreement (NAFTA) in 1994 prompted Mexico to adopt a modern competition law. These examples provide evidence of some of the strong links between competition laws and FDI. Apart from protecting foreign investors from anticompetitive practices by domestic firms, competition laws also monitor the competitive behaviors of multinational firms, all of which accord competition laws a confidence-building character in the context of FDI flows.<sup>681</sup>

Notwithstanding the above arguments, scholars have argued that competition laws could be seen as FDI-inhibiting. As reviewed by Clougherty and Zhang,<sup>682</sup> this strand of the relevant literature posits that “governments prefer domestically-owned entities; hence, authorities conduct competition policy—especially the sub-policy of merger control—in a manner as to deter foreign ownership and encourage domestic ownership of local businesses”. This argument was particularly on display when China enacted its Anti-Monopoly Law in 2007: The concern was the law would be used to protect China's domestic firms at the cost of the

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<sup>676</sup> Madhav Mehra, ‘Competition Law and Inclusive Growth’ *The Economic Times* (20 November 2010).

<sup>677</sup> *ibid.*

<sup>678</sup> *ibid.*

<sup>679</sup> Marcus Noland, ‘Competition Policy and FDI—A Solution in Search of a Problem?’ (1999) (99) (3) Peterson Institute for International Economics <<https://www.piie.com/publications/working-papers/competition-policy-and-fdi-solution-search-problem>> accessed 31 January 2021.

<sup>680</sup> UNCTAD, ‘World Investment Report: Transnational Corporations, Market Structure and Competition Policy’ (United Nations 1997) <[https://unctad.org/system/files/official-document/wir1997\\_en.pdf](https://unctad.org/system/files/official-document/wir1997_en.pdf)> accessed 7 February 2021.

<sup>681</sup> *ibid.*

<sup>682</sup> Clougherty, Zhang, ‘Foreign Investor Reactions to Risk and Uncertainty in Antitrust: U.S. Merger Policy Investigations and the Deterrence of Foreign Acquirer Presence’ (n11).

rapidly increasing number of foreign firms in the Chinese economy.<sup>683</sup> An early merger case that received much attention in this context was the failed attempt in 2008 by US-based Coca-Cola Co. to acquire Huiyuan Fruit Juice Company, China's then largest juice maker.<sup>684</sup> Being a highly successful Chinese firm that succeeded in the face of foreign competition, Huiyuan's proposed acquisition by a foreign MNC, which was also extremely popular in China at that time, was not received positively by a vast majority of the Chinese public and, arguably, by the Chinese authorities. Apparently, these early perceptions and negative experiences do not seem to have dented China's attractiveness as an FDI destination, as evidenced by the country's top position in FDI receipts over the last few decades.<sup>685</sup> Nonetheless, the concern remains that competition laws could be used as a policy tool and legal instrument for government intervention in the local economy and, thereby, detract from its free-market properties. This concern is especially pressing for newer competition jurisdictions, such as most of the ones included in this study, as their nascent character and transition from a largely statist economy arguably place greater pressure on their antitrust authorities to rule at least in a quasi-protectionist manner. As such, the theoretical discussion in this section, which has provided abundant arguments for an *a priori* ambivalent relationship between competition laws and FDI inflows, leads to the following main and alternate hypotheses, respectively, to be tested in this study:

H<sub>0</sub>: *Competition laws are positively related to foreign investment inflows.*

H<sub>A</sub>: *Competition laws are negatively related to foreign investment inflows.*

### III. RESEARCH DESIGN

The empirical examination of the true relationship between competition laws and FDI inflows requires a systematic study of these variables over an extended period of time. As such, this study uses data on competition laws, FDI inflows, and other relevant variables over a 50-year period starting from 1970. The outcome, or dependent, variable is FDI inflows, data for which are obtained from the World Bank's World Development Indicators and measure net foreign investment inflows—net of any divestments—in current US dollars. In line with the literature, the net FDI inflows data are converted to natural logs for the regression analyses. However, as there are negative values for the FDI data, the following procedure was used to log-transform the data for the FDI variable:<sup>686</sup>

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<sup>683</sup> See, e.g., Kevin Li, Ming Du, 'Does China Need Competition Law?' (2007) *Journal of Business Law* 182; Mark Williams, 'Competition Policy and Law in China, Hong Kong and Taiwan' (2005) Cambridge University Press.

<sup>684</sup> Britton Davis, 'China's Anti-Monopoly Law: Protectionism or a Great Leap Forward?' (2010) (33) (2) *Boston College International and Comparative Law Review* 305 <<http://lawdigitalcommons.bc.edu/iclr/vol33/iss2/5>> accessed 31 January 2021.

<sup>685</sup> In 2020, China passed the United States—for the first time ever—as the top destination for FDI inflows, as per data released by the United Nations Conference on Trade and Development. See Sara Hansen, 'China Passes U.S. As No. 1 Destination for Foreign Investment As Coronavirus Upends Global Economy' *Forbes* (24 January 2021) <<https://www.forbes.com/sites/sarahhansen/2021/01/24/china-passes-us-as-no-1-destination-for-foreign-investment-as-coronavirus-upends-global-economy/?sh=8b2761b12525>> accessed 24 January 2021.

<sup>686</sup> See Matthias Busse, Carsten Hefekar, 'Political Risk, Institutions and Foreign Direct Investment' (2007) (23) *European Journal of Political Economy* 397-415, 404.

$$\ln FDI_{it} = \ln (FDI_{it} + \sqrt{((FDI_{it})^2 + 1)})$$

The variable of interest—*competition law*—was hand-collected from various sources and was confirmed for veracity using at least two independent sources. The data for competition law adoptions by countries included in this study are provided in appendix B. The other relevant variables in the study comprise the control variables that account for the factors identified in the FDI literature as determinants of FDI inflows, namely, GDP,<sup>687</sup> population size, GDP per capita, economic growth rate, inflation, bilateral investment treaties, political system, economic system, and political risk. Together, the main variable of interest—*competition law*— and the control variables constitute the independent variables in this study. The data sources for these variables and descriptions of their measurements are provided in appendix C. The descriptive statistics for all the variables are provided in table 1. The data availability is not uniform across the variables, as is evident from the variation across the variables in the values under the column for observations, titled “Obs.”<sup>688</sup> This is because data for some variables—for example, economic system and political risk—are available only from the mid-1990s.

**Table 1: Summary Statistics**

Variable	Obs.	Mean	Std. Dev.	Min.	Max.
FDI (bln US\$)	6,850	2.05	11.69	-64.83	290.92
Competition Law	7,032	.34	.47	0	1
Population (mln)	7,719	30.37	125.11	.04	1397.71
GDP per capita ('000 US\$)	6,462	5.85	9.55	.16	116.23
Economic Growth	6,458	3.94	6.62	-64.04	149.97
Inflation	5,627	29.67	395.60	-60.49	23773.13
BITs	7,750	9.24	15.82	0	109
Political System	5,918	.11	6.90	-10	10
Economic System	2,673	6.30	1.08	2.43	8.70
Political Risk	3,694	.30	.73	-1.99	2.56

The data used in this study span the period from 1970–2019, which allows for 50 years’ worth of information on most of the included variables. The 155 countries that form part of the study are drawn from the group of developing and transition economies that are primarily located in Africa, Asia, Central and Eastern Europe, and Central and South America.<sup>689</sup> The data are annual observations for each variable per country, albeit with missing data, as discussed earlier in this section. The data, therefore, have both a longitudinal dimension of 50 years from 1970–2019 and a cross-sectional dimension with 155 countries. The panel data that

<sup>687</sup> Due to multicollinearity, the GDP variable will be dropped from the analyses and the market size measured by the population variable. See explanation later in this section.

<sup>688</sup> From a statistical standpoint, there are still enough observations for the validity of the results.

<sup>689</sup> The list of countries included in the study is provided in appendix B.

result from the longitudinal and cross-sectional dimensions dictate the choice of the econometric techniques and models employed for the empirical analyses. For example, one of the important considerations with the choice of panel data regression models is whether excluded time-invariant country-specific characteristics matter for the analysis.<sup>690</sup> In the event that they do, as is the case in the present study, econometric theory instructs that a fixed effects (FE) model be used for the analysis.<sup>691</sup> An FE model is also appropriate for the present study given the interest in estimating the variation in FDI inflows over time for the same country.<sup>692</sup> Based on these theoretical and statistical considerations, the present study uses FE models for the empirical analyses.

A well-known problem, however, with econometric studies that use panel data is one of endogeneity. In general, endogeneity can arise from reverse causality and non-independence among the independent variables included in the model. In the present study, for example, reverse causality could be present if MNCs succeeded in pressuring developing and transition country governments to enact national competition laws in countries where these laws did not exist. In that case, FDI inflows could very well impact the adoption of competition laws, which is a reversal of the causal direction theorized in this study. The second source of endogeneity—the non-independence of independent variables from each other, which is an assumption of these econometric models—would prevail if two or more independent variables are correlated.<sup>693</sup> For example, the antitrust literature has documented the positive relationships between competition laws and both democracy and free market economy.<sup>694</sup> Besides endogeneity, regressions using panel data could also suffer from cross-sectional dependence—this is also known as “spatial” dependence where entities included in the data are not completely independent of each other and could “exhibit complex patterns of mutual dependence” among them.<sup>695</sup> For example, in the present study, it is quite possible that many of the policy actions undertaken by the countries included in the sample are influenced by

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<sup>690</sup> Some examples of excluded time-invariant country-specific characteristics for the present study would be historical factors like colonial or communist pasts and any relevant institutional or cultural aspects like language or business culture. These are “fixed” characteristics that might have an impact on FDI inflows but are not specifically controlled for in the econometric models used in the study.

<sup>691</sup> The competing model is a random effects (RE) model, where it is not assumed that the subjects of the study—countries, in this case—have time-invariant characteristics that are omitted from the study. This is, however, a serious assumption for the present study, and is, therefore, not advisable. Apart from these theoretical considerations, a Hausman test was undertaken to statistically confirm the choice of the FE model over the RE model.

<sup>692</sup> This is usually referred to as the “within-group variation”, with “group” in this context referring to countries.

<sup>693</sup> In regression models, the estimated coefficient value for a particular independent variable represents the change in the dependent variable for a one-unit change in that independent variable, assuming all other independent variables are constant. In other words, it assumes that the one-unit change in the independent variable does not cause any change in the other independent variables included in the regression model. That is, the independent variables are independent of each other. A serious violation of this independence leads to a problem known as “multicollinearity,” which is explained later in this section.

<sup>694</sup> Franz Kronthaler, Johannes Stephan, ‘Factors Accounting for the Enactment of a Competition Law—An Empirical Analysis’ (2007) (52) (2) *Antitrust Bulletin* 137; Raju Parakkal, ‘Political Characteristics and Competition Law Enactment: A Cross-Country Empirical Analysis’ (2011) (56) (3) *The Antitrust Bulletin* 609-629; Raju Parakkal, Sherry Bartz-Marvez, ‘Capitalism, Democratic Capitalism, and the Pursuit of Antitrust Laws’ (2013) (58) (4) *The Antitrust Bulletin* 693-729.

<sup>695</sup> Daniel Hochele, ‘Robust Standard Errors for Panel Regressions with Cross-Sectional Dependence’ (2007) (7) (3) *The Stata Journal* 281-312.

similar actions undertaken by other countries in their political, economic, or policy “neighborhoods.”<sup>696</sup> To address the first of the two endogeneity problems, the FE models lag the independent variables by one, two, and three years, thereby avoiding the possibility of reverse causality between FDI inflows and the independent variables. While the theoretical possibility of non-independence between independent variables still exists, a check of the data for multicollinearity among the variables was undertaken, and the few instances of multicollinearity were addressed before proceeding with the analyses.<sup>697</sup> The final issue of cross-sectional dependence is eliminated by the use of estimation techniques proposed by Driscoll and Kraay.<sup>698</sup> Finally, to account for the argument that FDI inflows possess “memory”, that is, the inflows in one year are possibly influenced by inflows in the immediately preceding year(s), the study adopts a dynamic panel data model by including lagged value(s) of the dependent variable.<sup>699,700</sup> The FE model, therefore, takes the following general form:

$$FDI_{it} = FDI_{it-1}\beta_1 + CLaw_{it-1}\beta_2 + Z_{it-1}\gamma + \alpha_i + u_{it-1}$$

where,

$i = 1 \dots 155$  (countries in the sample)

$t = 1970 \dots 2019$  (data period)

$FDI_{it}$  = FDI inflows in current year (measured in natural logs)

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<sup>696</sup> For an early discussion of the policy convergence literature, see Daniel W. Drenzer, ‘Globalization and Policy Convergence’ (2001) (3) (1) *International Studies Review* 53-78.

<sup>697</sup> Multicollinearity occurs when variables are correlated with each other, thereby making the coefficient signs and estimates unreliable and extremely sensitive to variations in the regressors included in the model. A common test for multicollinearity is to estimate the Variance Inflation Factor (VIF) values of the independent variables after running a linear regression model. This test confirmed the presence of multicollinearity for three variables—GDP, GDP per capita, and population—due to GDP per capita being a variable constructed from both GDP and population. As such, the GDP variable was dropped from the analyses and the size of the market was measured by the population variable. The effect of GDP will still be accounted for through the GDP per capita variable. A correlation matrix for the independent variables is provided in appendix A.

<sup>698</sup> See John Driscoll and Aart Kraay, ‘Consistent Covariance Matrix Estimation with Spatially Dependent Panel Data’ (1998) (80) (4) *The Review of Economics and Statistics* 549-560. Following Hoechle (2007), an adjusted Driscoll-Kraay estimator was used, which produces standard errors that are robust to heteroskedasticity, autocorrelation, and cross-sectional (spatial) and temporal dependence. In Stata, the panel data regression command used is `xtsc`. [Daniel Hoechle, ‘Robust Standard Errors for Panel Regressions with Cross-Sectional Dependence’ (2007) (7) (3) *The Stata Journal* 281–312.]

<sup>699</sup> An Arellano-Bond dynamic panel data model based on Generalized Method of Moments (GMM) was considered but not adopted since the Arellano-Bond GMM model is appropriate for panel data with “small  $T$ , large  $N$ ,” meaning the number of years is very small and the number of panels (that is, countries) is very large (see Roodman 2009: 86). In this study, however, the panel data contain both a large number of countries and a large number of years. Furthermore, the Sargan test rejected the null hypothesis of the validity of overidentifying restrictions. [David Roodman, ‘How to do Xtabond2: An Introduction to Difference and System GMM in Stata.’ (2009) (9) (1) *The Stata Journal* 86-136.]

<sup>700</sup> While the use of a lagged dependent variable as an independent variable makes the model dynamic, it also introduces an endogeneity problem because the lagged dependent variable is not independent of  $\alpha_i$ , which is included in the model as the unobserved time-invariant intercept consisting of country-specific characteristics. This endogeneity introduces bias and inconsistencies in the coefficient estimates, which is known in the literature as the “Nickell bias”. However, this bias is inversely related to the number of years,  $T$ , in the data used and becomes progressively reduced with the increasing number of years in the data (see Nickell (1981)). Since the data in the present study contain a large enough  $T$ , this particular endogeneity problem is not too severe to substantially affect the coefficient estimates. [Stephen Nickell, ‘Biases in Dynamic Models with Fixed Effects’ (1981) (49) (6) *Econometrica* 1417-1426.]

$FDI_{it-1}$  = FDI inflows in previous year (measured in natural logs)

$CLaw_{it-1}$  = Competition law variable (presence/absence previous year)

$Z_{it-1}$  = A vector of control variables in previous year

$\beta_1, \beta_2, \gamma$  = Coefficients for  $FDI_{it-1}$ ,  $CLaw_{it}$ , and  $Z_{it}$ , respectively

$\alpha_i$  = Unobserved time-invariant country-specific characteristics  
(for example, historical and institutional factors)

$u_{it}$  = Error term

Some of the independent variables used in the analysis—GDP per capita, economic growth rate, and inflation—are measured using time series data that needed to be checked for stationarity, especially given the long time period in the study.<sup>701</sup> While economic growth and inflation displayed stationarity, GDP per capita did not and had to be converted to logs to ensure stationarity.<sup>702</sup>

A key consideration in this study is the measurement of the main variable of interest—*competition law*. During the early part of the period under study, some of the countries adopted or already had on the books, laws that were meant to prevent anticompetitive practices but not to explicitly promote competition. For example, India's Monopolies and Restrictive Trade Practices Act of 1969 had the objective that “the concentration of economic power in private hands did not operate to the common detriment” and that the law was expected to “control and regulate monopolistic and restrictive trade practices.”<sup>703</sup> Pakistan too had an identically titled law that had a similar focus.<sup>704</sup> Sri Lanka's Fair Trading Commission Act of 1987, which served as the country's competition law until a new law was enacted in 2003, “dealt with the control of monopolies and mergers and prevention of anti-competitive practices.”<sup>705</sup> The focus of this earlier set of laws was very clearly on the prevention of anticompetitive acts and price-fixing rather than the explicit promotion of market competition, as is the case with competition laws that were adopted by most emerging economies in the 1990s and beyond. For example, both India and Pakistan adopted new competition laws in 2002 and 2007, respectively, that expressly promoted free competition and the sustenance of competitive markets.<sup>706</sup> While the prevention of anticompetitive and monopolistic practices would no doubt promote market

<sup>701</sup> Time series data are stationary if the statistical properties of the data, such as the mean, variance, and autocorrelation structure, are constant over time. Stationarity is of particular concern while using time series data as these data could consistently increase over time, resulting in statistical properties that do not remain constant over time and, thereby, producing spurious results.

<sup>702</sup> The stationarity tests were conducted using a Fisher-type unit-root test based on augmented Dickey-Fuller tests.

<sup>703</sup> The Monopolies and Restrictive Trade Practiced Act 1969.

<sup>704</sup> Monopolies and Restrictive Trade Practices Ordinance 1970.

<sup>705</sup> Dianarthy Suthakar, ‘Beyond ‘More Economics-Based Approach’: A Legal Perspective on Competition in Sri Lanka’ (2018) Proceedings of the 11<sup>th</sup> International Research Conference General Sir John Kotelawala Defence University Sri Lanka 23 <<http://ir.kdu.ac.lk/handle/345/2568>> accessed 23 January 2021.

<sup>706</sup> Pakistan's Competition Ordinance, 2007 was subsequently replaced with the Competition Act, 2010.

competition, the fact remains that most of these erstwhile laws were less concerned with using the provisions of the law to promote a free market economy, a fact that is consequential for the theorized relationship between competition laws and FDI inflows. Put differently, there are qualitative differences in competition laws enacted by countries during the 50-year period under study that lead to questions such as: Do India's MRTP Act, 1969 and Pakistan's MRTP Ordinance, 1970 qualify as competition laws for this study, although these laws did not explicitly target the promotion of market competition as modern competition laws do? This study, therefore, employs three measures of the dependent variable—a first measure that treats as a competition law only those that explicitly promote market competition, a second measure that counts as a competition law only those that were enacted in 1990 or later,<sup>707</sup> and a final measure that denotes all legislations targeting anticompetitive and monopolistic practices as competition laws, regardless of whether these laws explicitly targeted the promotion of market competition and a free market economy. The initial analyses are undertaken using the third measure, while the first and second measures are included as part of the robustness checks.

#### IV. EMPIRICAL RESULTS AND DISCUSSION

The analyses begin by first evaluating the control variables that were identified from existing FDI literature. Table 2 presents the results from running four FE dynamic panel data models. The models do not include the competition law variable, as this preliminary analysis seeks to evaluate only the control variables and how they relate to the dependent variable, FDI inflows. Model 1 includes five of the most commonly used variables in FDI research and reports results that are consistent with the literature: All five variables are highly statistically significant at the 1% alpha level and take the hypothesized signs. Foreign investments are, therefore, positively attracted to larger markets with more wealthy consumers; these investments seek emerging economies with higher growth rates and lower inflation; and, finally, emerging markets that have signed more BITs receive relatively more FDI.

**Table 2: FE Dynamic Model Results for Control Variables**

Variable	Dependent Variable: FDI Inflows (logged)			
	Model 1	Model 2	Model 3	Model 4
Population	4.48*** (.372)	3.17*** (.329)	3.21*** (.449)	2.65*** (.895)
GDP per capita	.999*** (.175)	.813*** (.173)	.673*** (.205)	1.00*** (.263)

<sup>707</sup> This measurement is based on the observation that most competition laws enacted in the post-1990 era of market reforms and economic globalization in most developing and transition countries explicitly targeted the promotion of free competition and an open economy, among other objectives. As noted in the literature, the 1990s represent the beginning of a marked departure in the attitudes of most of the emerging economies towards foreign competition and investments—from an erstwhile skeptical approach, the attitude changed to a welcoming one. See James R. Markusen, Anthony J. Venables, 'Foreign Direct Investment as a Catalyst for Industrial Development' (1999) (43) *European Economic Review* 335-356.

Economic Growth	.044*** (.009)	.049*** (.010)	.088*** (.019)	.049*** (.013)
Inflation	-.000*** (.000)	-.000*** (.000)	-.000 (.000)	-.001 (.001)
BITs	.037*** (.006)	.041*** (.007)	.018** (.008)	.019* (.009)
Political System		.031** (.015)	.013 (.013)	-.005 (.024)
Economic System			.627*** (.112)	
Political Risk				-.943*** (.267)
<i>Countries</i>	147	128	121	128
<i>Observations (N)</i>	5113	4456	2295	2700
<i>F-stat</i>	170.30***	149.27***	263.48***	25.40***
<i>R-squared (within)</i>	.22	.21	.20	.05

*Note:* \* $p < 0.1$ , \*\* $p < 0.05$ , \*\*\* $p < 0.01$ ; Driscoll/Kraay standard errors in parentheses; estimated values for the constant term are not shown; all independent variables are lagged by one year

Models 2, 3, and 4 progressively add more variables to the analysis. *Political system* takes the expected positive sign and is statistically significant in model 2, thereby signifying that more democratic countries receive more FDI than less democratic countries. The statistical significance for this variable is, however, absent in models 3 and 4, possibly from the drastic reduction in the number of observations in these two latter models due to the inclusion of the economic system and political risk variables. *Inflation* too loses its statistical significance in these two models, most likely due to the reduced number of observations. Both the variables, *economic system* and *political risk*, are statistically significant and take the expected signs.<sup>708</sup> The positive coefficient for *economic system* indicates that more free-market economies receive higher levels of FDI inflows. Meanwhile, the negative coefficient for *political risk* supports the hypothesis of depressed FDI inflows for more politically risky host countries. Taken together, the coefficient estimates of all the four models in table 2 indicate that the control variables included in this study confirm the findings of existing FDI literature.

The main variable of interest, *competition law*, enters the analysis through inclusion in models 1 through 5 in table 3. Model 1 is a baseline model that contains only the competition law variable. The positive and highly statistically significant coefficient for *competition law* signifies that the presence of national competition laws has a positive effect in attracting more

<sup>708</sup> *Economic system* and *political risk* are not included in the same models because of the relatively fewer observations for both of these variables and the consequent implications for the model estimates of an overall reduced number of observations in the models.

FDI inflows. Models 2 through 5 return similar results for this variable, after controlling for the effects of other determinants of FDI inflows. In terms of the size of the effect, we find it to be substantial: Taking the model 3 estimates as a representative example,<sup>709</sup> the presence of a national competition law leads to a 77% increase in FDI inflows, after controlling for the effects of other determinants.<sup>710</sup> The fact that the positive and statistically significant effect of *competition law* holds through all five models is strong evidence of the robustness of the results. To further check for robustness, the lags for the full set of predictor variables were changed to two and three years. Unreported results from these two sets of analyses returned coefficient estimates for *competition law* that were very similar in magnitude and identical in sign to those for the one-year lag. Therefore, the results are not sensitive to the choice of the lag period for the independent variables.

An additional robustness check was undertaken with respect to the measurement of the competition law variable. Since the models in table 3 measured competition laws without qualitatively evaluating them for their competition-promoting goals, versus the traditional anti-monopoly objective, two additional measures of *competition law* were employed.

**Table 3: Competition Laws and FDI Inflows: FE Dynamic Model Results**

	Dependent Variable: FDI Inflows (logged)				
Variable	Model 1	Model 2	Model 3	Model 4	Model 5
Competition Law	3.38*** (.326)	.531*** (.100)	.572*** (.105)	.364* (.192)	.512*** (.131)
FDI (lagged)		.400*** (.032)	.385*** (.034)	.238*** (.080)	.297*** (.055)
Population		1.84*** (.272)	1.65*** (.264)	2.29*** (.418)	1.30 (.765)
GDP per capita		.424*** (.125)	.343*** (.126)	.330 (.201)	.545** (.214)
Economic Growth		.026*** (.008)	.030*** (.009)	.065*** (.022)	.029** (.011)
Inflation		-.000*** (.000)	-.000*** (.000)	-.000 (.000)	-.001 (.001)
BITs		.018*** (.004)	.020** (.005)	.013 (.009)	.011 (.008)
Political System			.022** (.010)	.023** (.011)	.007 (.022)

<sup>709</sup> Of the five models in table 3, model 3 has a reasonably high number of observations and includes most of the control variables.

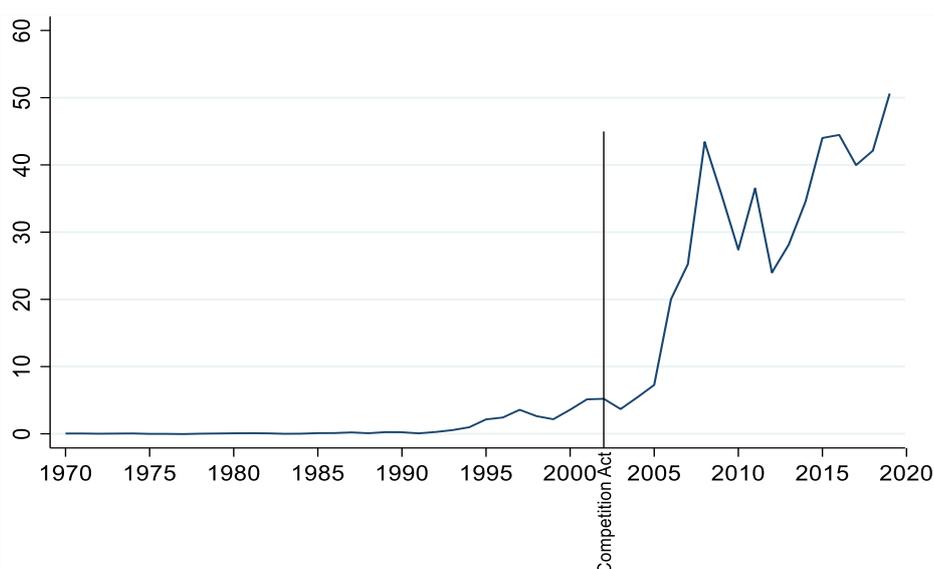
<sup>710</sup> Since the FDI data are in natural logs, the 0.572 coefficient value for competition law was exponentiated to obtain the percentage effect. That is,  $exp(.572) \approx 1.77$ . Therefore, the percentage effect is  $[(1.77 - 1) \times 100] = 77\%$ .

Economic System				.430***	
				(.062)	
Political Risk					-.592**
					(.277)
<i>Countries</i>	155	147	128	121	128
<i>Observations (N)</i>	6675	5079	4434	2290	2693
<i>F-stat</i>	197.71***	223.13***	233.08***	433.44***	38.83***
<i>R-squared (within)</i>	.14	.35	.33	.25	.14

Note: \* $p < 0.1$ , \*\* $p < 0.05$ , \*\*\* $p < 0.01$ ; Driscoll/Kraay standard errors in parentheses; estimated values for the constant term are not shown; all independent variables are lagged by one year

The first measure examined the text of competition laws enacted prior to 1990 to identify any explicit evidence of competition-promoting language and goals, in which case the legislation was accepted as a competition law for this analysis. For example, Israel's Economic Competition Law, 1988 was marked as a competition law for this measurement of *competition law* while those of Brazil and India, along with a few others, were not. The second measure identified all competition laws enacted in 1990 and later as expressly competition-promoting in its objectives, on the assumption that modern competition laws enacted in the post-1990 period largely adopted pro-competition principles, in addition to anti-monopoly provisions. Unreported results of these robustness checks for all three time lags did not reveal any change in the sign or statistical significance of *competition law* in its relationship with FDI inflows. The coefficient values also remained largely the same, with evidence of even stronger positive effects of the presence of competition laws on FDI inflows.

**Figure 3:** India's FDI Inflows, 1970-2019 (in USD billion)



The results of the cross-country empirical analyses provide strong evidence that the presence of competition laws in a host country encourages foreign investors to choose that country when

they seek favorable locations to invest. India's experience in this context is particularly illustrative, as evidenced from the information presented in figure 3. India's FDI inflows remained relatively flat for the first two and a half decades of the study period. But by the mid-to-late-1990's foreign investment inflows picked up momentum, and in the years after the enactment of India's Competition Act 2002, FDI inflows took off quite noticeably. While it would be far-fetched to attribute this remarkable and sustained increase in FDI inflows entirely to the adoption of the Competition Act, there is compelling evidence from both the cross-country analyses and the evidence presented in figure 3 that the new competition law was at least one of the many key motivating factors in India's case. Very clearly, the adoption of the competition law did not deter foreign investors from increasing their investments in India.

The evidence of increased FDI inflows in India's case is further revealing when analyzed in the context of the text of India's Competition Act, 2002 pertaining to combinations and abuse of dominance that apply to all investments in India, including by foreign investors. According to Sec. 6 (1) of the Competition Act, "No person or enterprise shall enter into a combination which causes or is likely to cause an appreciable adverse effect on competition within the relevant market in India and such a combination shall be void."<sup>711</sup> These combinations include mergers and acquisitions involving a foreign and an Indian entity, and thus apply to foreign investments as well. Certain combinations—for example, mergers, acquisitions and amalgamations, including foreign-to-foreign transactions—will have to be notified to the competition authority, the Competition Commission of India (CCI), for scrutiny and clearance. Evidently, the CCI's goal is to ensure that a combination does not cause an appreciable adverse effect on competition in the relevant market in India, even if the investor is foreign. In addition to combinations, foreign investors are also prohibited from entering into anti-competitive agreements, and from abusing their dominant positions. These provisions are provided in Sections 3 and 4, respectively, read with Sec. 19 of the Competition Act, and apply equally to domestic and foreign investors. By examining India's Competition Act, 2002 as an illustrative example, it becomes abundantly clear that the provisions of the country's competition law did not hamper FDI inflows to India and instead, evidently provided an impetus to these inflows. India's experience, therefore, mirrors the broader finding of a positive association between competition laws and foreign investments.

## V. CONCLUSIONS

This study sought to fill a gap in the recent FDI literature that missed to systematically examine the effect of competition laws on FDI inflows in developing and transition economies. The findings provide overwhelming evidence that competition laws promote these investment inflows in these emerging economies. These laws certainly do not deter them, as argued in some of the early literature on this topic. These findings permit both scholarly and policy-relevant conclusions and implications.

First, the findings demonstrate that MNCs, while being apprehensive of the possible misuse of competition laws—especially in newer jurisdictions—are generally cognizant of the long-

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<sup>711</sup> The Competition Act 2002, s 6(1).

term positive effects of these laws on their investments in emerging economies. Foreign investors have arguably discounted into their future cash flows from these foreign outlays any setbacks they might encounter from possible business-unfriendly applications of these laws. Given that FDI typically has a long horizon, MNCs possibly assume emerging economies with new, or even mature, competition law structures will eventually ignore any demands for protection to local firms and industries in favor of the promotion of open competition and a free market economy.

An immediate derivative of the first conclusion above is the second understanding that pertains largely to competition laws as adopted and developed in developing and transition countries. MNCs, and quite likely the wider community of scholars and practitioners of competition laws, expect the administration and enforcement of national competition laws in new jurisdictions to ultimately pivot to a less interventionist and more pro-market disposition, if they were not so from the beginning. This expectation arguably underpins the willingness of MNCs to overlook any negative perceptions of a new competition law in an emerging economy and to instead accept the more positive aspects of this new competition law. Additionally, and as especially relevant for the evolution of competition laws in new emerging market jurisdictions, this understanding points to the channels of communication and knowledge-sharing that exist in global competition networks where competition authorities in newer jurisdictions are increasingly “socialized” to a version and nature of competition laws that eschew interventionism for a hands-off approach to the application of these laws.

Third, a conclusion from these findings that has policy implications is the need to further emphasize the importance of competition laws as a tool to promote foreign investments. Policymakers in countries without a competition law can derive additional impetus for any proposed plans to adopt national competition laws in their jurisdictions. Of the many positive outcomes generally argued for the installation of a competition regime, the pro-FDI properties of these laws would undeniably be an effective one to include.

Finally, despite the fact that the FDI literature is extremely vast, there still exist determinants that have received relatively less attention in recent times from scholars and academics for detailed and systematic analyses. Competition law is one such example, as can be concluded from this study. There are potentially other factors that could have an encouraging or deterring effect on FDI flows. Future research in this area should be targeted to unearthing these hitherto unexamined or underexamined variables to further enrich this literature.

**Appendix A: Correlation Matrix\***

Variable	CL	Pop.	GDP PC	EG	Inf.	BITs	PS	ES	PR
Competition Law (CL)	1								
Population (Pop.)	0.128	1							
GDP per capita (GDPPC)	0.101	-0.074	1						
Economic Growth (EG)	-0.020	0.069	0.014	1					
Inflation (Inf.)	-0.009	0.000	-0.023	-0.070	1				
BITs	0.555	0.292	0.190	0.023	-0.029	1			
Political System (PS)	0.405	0.011	0.062	-0.053	0.018	0.255	1		
Economic System (ES)	0.336	-0.075	0.365	0.011	-0.098	0.355	0.481	1	
Political Risk (PR)	-0.192	0.057	-0.603	0.072	0.150	-0.230	-0.353	-0.695	1

\* Correlations based on pairwise deletion.

**Appendix B: List of Countries and Competition Law Enactment Dates\***

Afghanistan (2011); Albania (1995); Algeria (1995); Angola; Antigua and Barbuda; Argentina (1980; 1999); Armenia (2000); Azerbaijan (1993); Bahamas, The; Bahrain (2018); Bangladesh (1972; 2012); Barbados (2002); Belarus (1992); Belize; Benin; Bhutan; Bolivia; Bosnia and Herzegovina (2001); Botswana (2009); Brazil (1962; 1994); Brunei Darussalam (2015); Bulgaria (1991); Burkina Faso (1994); Burundi (2010); Cambodia; Cameroon (1998); Cape Verde (1999); Central African Republic; Chad; Chile (1959; 2003); China (2007); Colombia (1959; 1992); Comoros (2016); Congo, Dem. Rep. (2018); Congo, Rep.; Costa Rica (1994); Cote d'Ivoire (1991); Croatia (1995); Cyprus (1989; 1999); Czech Republic (1993); Djibouti; Dominica; Dominican Republic (2008); Ecuador (2011); Egypt (2005); El Salvador (2004); Equatorial Guinea; Eritrea; Estonia (1993); Ethiopia (2003); Fiji (2010); Gabon (1998); Gambia, The (2007); Georgia (1996); Ghana; Grenada; Guatemala; Guinea; Guinea-Bissau; Guyana (2004); Haiti; Honduras (2005); Hungary (1990); India (1969; 2002); Indonesia (1999); Iran (2008); Iraq; Israel (1988); Jamaica (1993); Jordan (2004); Kazakhstan (1992); Kenya (1988; 2010); Kiribati; Kuwait (2007); Kyrgyz Republic (1994); Lao PDR (2004); Latvia (1991); Lebanon; Lesotho; Liberia; Libya; Lithuania (1992); Macedonia, FYR (1999); Madagascar (2005); Malawi (1998); Malaysia (2010); Maldives; Mali (1992); Mauritania; Mauritius (2003); Mexico (1992); Moldova (1992); Mongolia (1993); Montenegro (2012); Morocco (2000); Mozambique (2007); Myanmar (2015); Namibia (2003); Nepal (2007); Nicaragua (2006); Niger (2015); Nigeria (2019); Oman (2014); Pakistan (1970; 2007); Panama

(1996); Papua New Guinea (2002); Paraguay (2013); Peru (1991); Philippines (2015); Poland (1990); Qatar (2006); Romania (1996); Russian Federation (1992); Rwanda (2012); Samoa (2016); Sao Tome and Principe; Saudi Arabia (2004); Senegal (1994); Serbia (1996); Seychelles (2009); Sierra Leone; Singapore (2004); Slovak Republic (1993); Slovenia (1992); Solomon Islands; Somalia; South Africa (1955; 1998); South Korea (1980); Sri Lanka (1987; 2003); St. Kitts and Nevis; St. Lucia; St. Vincent and the Grenadines (1999); Sudan (2009); Suriname; Swaziland (2007); Syria (2008); Tajikistan (1992); Tanzania (2003); Thailand (1999); Togo; Tonga; Trinidad and Tobago (2006); Tunisia (1991); Turkmenistan; Uganda; Ukraine (1992); United Arab Emirates (2013); Uruguay (2000); Uzbekistan (1992); Vanuatu; Venezuela (1992); Vietnam (2004); Yemen (1999); Zambia (1994); Zimbabwe (1996)

*\* The year of enactment of the first competition law is given in parentheses after a country. If more than one year is given for a country, the second year is the year of any enactment of the first updated competition law in the post-1990 period. If no year is given in parentheses for a country, that country does not have a competition law.*

### Appendix C: Variable Description and Data Sources

Variable	Description	Source
<i>FDI</i>	Foreign direct investment, net inflows (current US\$). Net of any divestments. Foreign direct investment refers to direct investment equity flows in the reporting economy. It is the sum of equity capital, reinvestment of earnings, and other capital. Direct investment is a category of cross-border investment associated with a resident in one economy having control or a significant degree of influence on the management of an enterprise that is resident in another economy. Ownership of 10 percent or more of the ordinary shares of voting stock is the criterion for determining the existence	World Bank World Development Indicators (WB WDI) Database (Oct 15, 2020 release). Source URL: <a href="https://datacatalog.worldbank.org/dataset/world-development-indicators">https://datacatalog.worldbank.org/dataset/world-development-indicators</a> Hereafter referred to as WB WDI 2020.

	of a direct investment relationship.	
<i>Competition Law</i>	Binary variable measured per year as 1 = Competition Law and 0 = No Competition Law	Author-collected dataset; see appendix B
<i>Population</i>	Total population of a country; all residents regardless of legal status or citizenship.	WB WDI 2020
<i>GDP per capita</i>	GDP per capita (constant 2010 US\$); GDP per capita is gross domestic product divided by midyear population.	WB WDI 2020
<i>Economic Growth</i>	GDP growth (annual %); annual percentage growth rate of GDP at market prices based on constant local currency. Aggregates are based on constant 2010 U.S. dollars.	WB WDI 2020
<i>Inflation</i>	Inflation, consumer prices (annual %); inflation as measured by the consumer price index reflects the annual percentage change in the cost to the average consumer of acquiring a basket of goods and services that may be fixed or changed at specified intervals, such as yearly. The Laspeyres formula is generally used.	WB WDI 2020
<i>BITs</i>	This is the net total number of bilateral investment treaties (BITs) in force during that year for a country. Therefore, the number reflects deductions made for any	Author-collected dataset. Source URL: <a href="https://investmentpolicy.unctad.org/international-investment-agreements">https://investmentpolicy.unctad.org/international-investment-agreements</a>

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	BITs that were terminated that year.	
<i>Political System</i>	The scale ranges from -10 (strongly autocratic) to +10 (strongly democratic).	This is the Polity2 variable from the Polity V database 2018. Source URL: <a href="https://www.systemicpeace.org/inscrdata.html">https://www.systemicpeace.org/inscrdata.html</a>
<i>Economic System</i>	The index ranges from 0 to 10, with higher values signifying higher levels of economic freedom. The EFW index measures the degree to which the institutions and policies of countries are consistent with economic freedom.	This is the Economic Freedom of the World (EFW) Index scores from the 2020 release of the Fraser Institute, Canada. Source URL: <a href="https://www.fraserinstitute.org/economic-freedom/dataset">https://www.fraserinstitute.org/economic-freedom/dataset</a>
<i>Political Risk</i>	A composite index comprising the following 5 indices from the World Bank Worldwide Governance Indicators (WGI) dataset: Political Stability, Government Effectiveness, Regulatory Quality, Rule of Law, and Control of Corruption. Higher values indicate higher political risk (the original data were reverse-coded to be consistent with the variable name).	World Bank Worldwide Governance Indicators (WGI). Source URL: <a href="http://info.worldbank.org/governance/wgi/">http://info.worldbank.org/governance/wgi/</a>

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