

Surges and Stops in FDI Flows to Developing Countries

Does the Mode of Entry Make a Difference?

Martijn J. Burger
Elena I. Ianchovichina

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Abstract

This paper investigates the factors associated with foreign direct investment “surges” and “stops,” defined as sharp increases and decreases, respectively, of gross foreign direct investment inflows to the developing world and differentiated based on whether these events are led by waves in greenfield investments or mergers and acquisitions. Greenfield-led surges and stops occur more frequently than mergers and acquisitions-led ones and different factors are associated with the onset of the two types of events. Global liquidity is the only factor significantly associated with a surge, regardless of its

kind, while decline in global economic growth and a surge in the preceding year are the only predictors of a stop. Greenfield-led surges and stops are more likely in low-income and resource-rich countries than elsewhere. Global growth, financial openness, and domestic economic and financial instability enable mergers and acquisitions-led surges. These results differ from those in the literature on surges and stops and are particularly relevant in countries where foreign direct investments dominate capital flows.

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Surges and Stops in FDI Flows to Developing Countries: Does the Mode of Entry Make a Difference?*

Martijn J. Burger[♦] and Elena I. Ianchovichina^{*}

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[♦] Martijn J. Burger is assistant professor at the Department of Applied Economics, Erasmus University Rotterdam, Tinbergen Institute and Erasmus Research Institute of Management (ERIM), P.O. Box 1738, 3000 DR Rotterdam, the Netherlands. Tel: +31 (0)10 4089579. Fax: +31 (0)10 4089141. E-mail: mburger@ese.eur.nl. URL: <http://www.mjburger.net>.

^{*} Elena Ianchovichina is lead economist at the Chief Economist Office, Middle East and North Africa Region, World Bank, 1818 H Street NW, Washington, DC 20433, USA, Tel: +1 202 458 8910, E-mail: eianchovichina@worldbank.org.

1. Introduction

Over the past three decades the world has witnessed a dramatic rise in foreign direct investment (FDI) flows. Prior to 1985 the growth rate of FDI flows was comparable to the growth rates of world trade and output, but after that FDI flows grew at a much faster pace than either world trade or world output. The growing importance of FDI flows has spurred burgeoning literatures on the causes and effects of FDI in international and financial economics, international business, and economic geography.¹ Still, the rise of FDI has not proceeded in a smooth fashion. Since the 1980s, there have been distinct waves of FDI with corresponding surges and stops, especially in developed countries (Andrade et al., 2001). Although developed countries have generally received more FDI flows than developing ones and host the majority of the inward FDI stock, developing countries have caught up (UNCTAD, 2011). In 2010, for the first time the developing world received more FDI flows than their developed counterparts, but some developing countries were more successful in attracting FDI than others. The distribution of inward FDI flows has been persistently disproportionate in that investments have concentrated within a limited number of developing countries (see also Noorbakhsh et al., 2001; UNCTAD, 2011).

This paper investigates the nature and determinants of FDI “stops” and “surges”, defined as sharp increases and decreases, respectively, of gross FDI flows² to the developing world, initiated by foreign investors and differentiated based on whether these events are led by waves in greenfield investments (GF) or mergers and acquisitions

¹ See Barba Navaretti and Venables (2004), Blonigen (2005), and Brakman et al. (2006) for overviews of these literatures.

² These flows include equity capital, reinvestment of earnings, other long-term capital, and short-term capital less disinvestments.

(M&A). In particular, we explore whether the mode of entry affects the incidence and determinants of FDI surges and stops. Several studies compare different types of financial flow events (e.g., Sula, 2010; Cardarelli et al., 2010; Agosin and Huaita, 2012; Forbes and Warnock, 2012; Furceri et al., 2012; Ghosh et al., 2012), but to our knowledge, none looks separately at the incidence and determinants of GF-led and M&A-led stops and surges in FDI flows to the developing world. The distinction is important for a number of reasons. The two types of FDI flows occur for different reasons and have different effects, characteristics, and incidence.³ GF investment inflows finance the construction of new facilities which augment the stock of physical capital and thus expand the production capacity in countries, increasing market competition and employment (Mattoo et al., 2004). M&As predominantly involve a change in ownership via the purchase of existing assets, although they might result in a more efficient allocation of resources (Kim, 2009; Wang and Wong, 2009; Harms and Méon, 2012).⁴ Importantly, whereas most global FDI waves have been associated with an increase in mergers and acquisitions (M&A) (Brakman et al., 2006), the extent to which greenfield (GF) investments contribute to surges and stops in FDI in developing countries remains unclear. It is, however, important to explore this question because GF investments dominate FDI flows to the developing world (Markusen and Stähler, 2011; UNCTAD, 2012), especially in resource-rich countries where local companies often have privileged access to the resources and, hence, host country government policies encourage GF investments into joint ventures. It is also true in low-income countries where large price differentials between the home and host countries and the absence of attractive

³ However, both modes are associated with increases in aggregate productivity.

⁴ M&A sales create rents for the previous owners which are not necessarily channeled into new investments (Harms and Méon, 2012). Yet, M&As might rely more on local and regional supplier networks than multinationals entering through greenfield investments (Wes and Lankes, 2001).

corporate assets make GF FDI more likely as an entry mode. Our focus on the developing world is also motivated by the study of Blonigen and Wang (2005) who show that the determinants of FDI flows to developing countries differ from those to developed ones.

Understanding the role played by the mode of entry in the incidence of FDI surges and stops is valuable in the context of rising FDI flows to the developing world. These types of flows have become an important and sometimes dominant source of finance in developing countries, so there is a concern that economic growth might be harmed in countries exposed to extreme fluctuations of either type of these flows (Lensink and Morrissey, 2006; Herzer, 2012). There is also the long-standing concern that sudden stops and surges in foreign capital flows might contribute to and arise as a result of macroeconomic volatility (Calvo et al., 2006) and crises (Reinhart and Reinhart, 2009; Furceri et al., 2012) as well as complicate macroeconomic management in developing economies. Abiad et al. (2011) and Cowan and Raddatz (2011), for instance, point to a connection between sudden stops and credit market imperfections. Gall et al. (2013) find that high past exposure to FDI flows may impede an economy's ability to respond to sudden stops in FDI, especially in industries relying on external financing, and more so in countries with less developed financial markets.

The paper is related to the broader literature on net capital flows, which are volatile, procyclical, and, during crises, prone to large “sudden stops,” defined as sharp slowdowns in net capital inflows. The literature originated with Calvo (1998) and broadened to include different conditions as well as the opposite events such as “surges”, defined as sharp

increases in net capital flows (Reinhart and Reinhart, 2009).⁵ However, this paper studies the behavior of gross FDI flows to developing countries as we are interested in surges and stops due to actions of foreigners. Cowan et al. (2008) and Rothenberg and Warnock (2011) make the point that measures of “sudden stops” constructed from data on net inflows are not able to differentiate between stops that are due to the actions of foreigners and those due to locals fleeing the domestic markets. In addition, Broner et al. (2013) show that gross capital flows are pro-cyclical and are larger and more volatile than net capital flows.

While Levchenko and Mauro (2007) show that FDI is the least volatile form of financial flow, when the average size of net or gross flows is taken into account, this paper shows that FDI surges and stops in the developing world are not rare events⁶ and therefore are worth an in-depth look. Specifically, the paper contributes to the literature in the following ways. First, we build a database of episodes when foreign investors substantially increase or decrease FDI inflows to a developing country and distinguish between these episodes based on the dominance of the mode of entry. Using this database, which covers the period from 1990 to 2010 and includes 95 developing economies, we then document the incidence of sudden stops and surges by mode of entry, region, and resource status of the receiving economy. Second, we identify the factors associated with FDI surges and stops by mode of entry (i.e. GF-led and M&A-led surges and stops). We show that GF-led and M&A-led extreme events such as surges and stops have different determinants and therefore must be studied separately.

⁵ Other papers that belong to this literature include, for example, Kaminsky et al. (1998), Levchenko and Mauro (2007), and Mendoza (2010).

⁶ All developing countries experienced at least one such event during the period of investigation and most countries experienced multiple FDI surges and stops.

Our approach yields different results from previous studies on surges and stops in FDI flows which do not differentiate between these events based on the mode of entry (e.g., Dell’Erba and Reinhart, 2012). We show that different factors are associated with the onset of GF-led and M&A-led FDI surges and stops. Global liquidity is the only common predictor of the two types of FDI surges, while a decline in global growth and a FDI surge in the preceding year are the only significant and consistent predictors of FDI stops. GF-led sudden stops and surges are more likely in lower income and resource-rich countries than elsewhere. Policies aimed at increasing financial openness are enablers of M&A-led surges, which are also more likely during periods of global growth and domestic economic and financial instability. The results are also policy relevant as we show that GF-led extreme events occur more frequently than M&A-led ones.⁷ Thus, countries relying mostly on GF investments, the more stable type of FDI inflows, are not immune to sudden stops in capital flows and should prepare to withstand them. Knowledge of the factors behind different types of FDI surges and stops can help policy makers in developing countries craft policies to successfully weather such episodes.

The remainder of this paper is organized as follows. The next section defines FDI surges and stops and presents information on the types and frequency of such surges. In section 3, we turn attention to the empirical models for predicting GF-led and M&A-led surges and stops, the discussion of the econometric results, and the robustness checks. Section 4 summarizes the findings and offers concluding remarks.

2. Identifying GF-led and M&A-led FDI Surges and Stops

Using UNCTAD data on gross FDI inflows from the World Investment Report (UNCTAD, 2011) and building on the work by Calvo et al. (2004), Reinhart and Reinhart

⁷ However, M&A-led surges are more likely to be short-lived and followed by a stop.

(2009), and Forbes and Warnock (2012), we define a surge episode as an increase in inflows in a given year that is more than one standard deviation above the country-specific (five-year rolling) average. The surge episode begins when the FDI-to-GDP ratio increases more than one standard deviation above its rolling mean and ends when the FDI-to-GDP ratio falls below one standard deviation above its rolling mean. In addition, we pose a restriction to the definition of an FDI surge in that the increase in the FDI-to-GDP ratio should fall within the top 25th percentile of the entire sample's FDI-to-GDP ratio growth. This not only ensures that the increase in FDI inflows is substantial, but also that only large surges by international standards are included in our definition of a surge (Ghosh et al., 2012).

This approach combines the two main empirical strategies present in the literature on surges and stops. One involves looking at deviations from the mean while the other requires factoring in minimum threshold values. Stops are defined in a symmetric way, with a stop episode defined as a decline in inflows in a given year that is more than one standard deviation below the rolling average. The stop episode starts when the ratio of FDI to GDP declines more than one standard deviation below its rolling mean and ends when the ratio increases above one standard deviation below its mean. We impose similar restrictions on stops as on surges.

To identify whether a FDI surge or a stop can be *mainly* attributed to an increase in M&A activity or GF investments, we use Thompson ONE Source data on M&A inflows, available from 1990 onwards. Following Calderon et al. (2004), Wang and Wong (2009), and Bogach and Noy (2013), GF FDI is defined as the difference between gross FDI and M&A inflows. Using this information, we assess whether a surge in a given year is dominated by an increase in M&A activity or by an increase in GF investments. A surge is M&A-led when more than half of the increase in FDI can be attributed to an increase

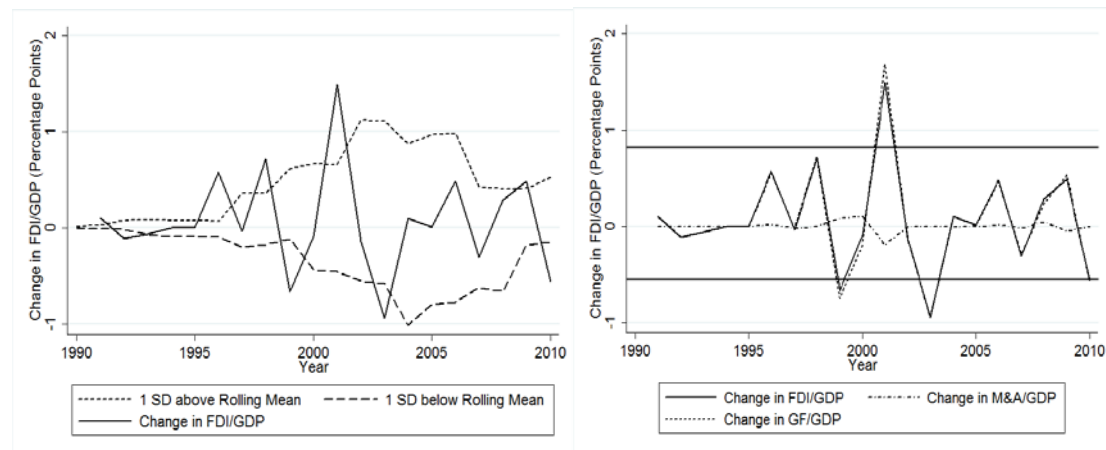
in M&A activity. Likewise, a surge is GF-led when more than half of the increase in FDI can be attributed to an increase in GF investments.

As indicated by Calderon et al. (2004), there are several potential problems with combining aggregate FDI inflow data with M&A data. First, FDI flows are measured on an accruals basis, while M&As are recorded at the time of an announcement or closure of a deal. As such, an FDI surge in a given year, for example, may be attributed to a sharp increase in M&A in the year before. Second, calculating GF FDI as the residual of FDI and M&A may possibly pollute the data with some international transactions that are not GF FDI. We control for these problems by verifying whether a FDI surge can indeed be attributed to either an increase in M&A or GF FDI and correct for anomalies in the data by accounting for the share of M&A activity in the year before the surge. When values for M&A activity are missing, it is assumed that the surge could be attributed to a surge in GF FDI. Exactly the same procedure is applied to identifying GF-led and M&A-led FDI stops.

Figure 1 on FDI surges and stops in Algeria illustrates how such events are identified. The left panel of Figure 1 assesses the first condition, namely that we speak of a surge if the FDI-to-GDP ratio increases more than one standard deviation above its five year rolling mean. We see that in Algeria this is the case in several years in the mid 1990s and the early and late 2000s. Likewise, a stop is identified when the FDI-to-GDP ratio decreases more than one standard deviation below its five year rolling mean. This is the case in 1992, 2003 and 2010. However, in order to qualify for a surge, the increase should fall within the top 25th percentile of the entire sample's FDI-to-GDP ratio growth, meaning an increase of at least 0.82 percentage points, marked by the top horizontal line in the right panel of Figure 1. Likewise, in order to qualify for a stop, the increase should fall within the bottom 25th percentile of the entire sample's FDI-to-GDP ratio growth,

meaning a decrease of at least 0.55 percentage points, marked by the bottom horizontal line in the right panel of Figure 1. This means that Algeria experienced a FDI surge only in 2001, while in 1999, 2003, and 2010 it experienced a FDI stop. As can also be observed from right panel of Figure 1, Algeria received few M&A flows. Hence, all surges and stops in Algeria are classified as GF-led.

Figure 1: Identification of Surge and Stop Episodes in Algeria



In total, the 95 developing economies in the sample experienced 264 surge-episodes during the period 1991-2010, of which 207 were led by a surge in GF investments and 57 were dominated by a surge in M&A activity (see Appendix A1).⁸ The unconditional probability of experiencing a surge in GF investments and M&A activity was 11.7% and 3.2%, respectively. Almost all countries in the sample (98%) experienced at least one surge. However, whereas the majority of countries (86%) experienced at least one GF-led surge in the period under research, the percentage of countries that experienced at least one M&A-led surge was much lower (42%).

⁸ Some countries had to be excluded from the empirical analysis because explanatory variables for these countries were not available.

Although M&A flows are much more volatile than GF flows,⁹ GF-led FDI surges outnumber M&A-led FDI surges in developing countries: around 80% of the FDI surges in developing economies can be attributed to an increase in GF FDI. Regions with either a high share of resource-rich or low-income countries or both such as the Middle East and North Africa and Sub-Saharan Africa, where GF investments represent a large share of FDI flows, have had the highest occurrence of GF-led FDI surges (Table 1). In resource-rich countries, governments encourage GF investments as local firms typically have privileged access to the resources. In low-income economies, large labor cost differentials between the home and host economies make GF FDI more likely as an entry mode. Regions with relatively strong links to global financial markets have had the lowest incidence of GF-led FDI surges and the highest incidence of M&A-led FDI surges. In addition, our analysis suggests that some countries experience more FDI surges than others and FDI surges occur at different times in different developing countries and usually last only a year. They were most prevalent in Europe and Central Asia and the Middle East and North Africa in the mid-2000s, in East Asia and Pacific and Sub-Saharan Africa in the late 1990s and late 2000s, and in Latin America and Caribbean in the mid-1990s.

We identify FDI stops in a symmetric way. The 95 developing economies in the sample experienced 282 stop-years during the period 1991-2010, of which 225 were GF-led stops and 57 were M&A-led stops (see also Appendix A1). The unconditional probability of experiencing a GF-led stop was 12.8%, while that for an M&A-led stop was 3.3%. All countries in the sample experienced at least one stop-year and most stops were GF-led. Yet, M&A-led surges are significantly more frequently followed by a stop in the next year (51%) than GF-led surges (28%) (p-value for the Fischer's exact test < 0.01). This

⁹ Whereas the average coefficient of variation for M&A flows was 4.00, the coefficient of variation for GF flows was only 0.82. The average coefficient of variation is based on the mean value for the coefficients of variation for all countries in the sample.

suggests that M&A-led surges are more likely to be short-lived and followed by a stop than GF-led events.

Table 1: Incidence and Types of FDI Surges and Stops in Developing Countries

	Incidence of Surge	% GF-led Surge	Incidence of Stop	% GF-led Stop
East Asia and Pacific	15.5%	72.3%	15.0%	67.6%
Europe and Central Asia	16.5%	54.5%	21.9%	65.6%
Latin America and Caribbean	15.8%	68.2%	14.5%	67.2%
Middle East and North Africa	13.1%	83.3%	15.7%	85.7%
South Asia	6.3%	80.0%	8.8%	77.8%
Sub-Saharan Africa	15.5%	89.2%	14.1%	92.6%
Resource-Rich Economies*	15.3%	87.9%	15.4%	86.7%
All Economies in Sample	14.9%	78.4%	15.1%	80.3%
* Hydrocarbon and Mineral Rich Countries as defined by IMF				

Although at the global level the unconditional probability of experiencing a surge is similar to that of a stop, the occurrence of surges varies by region and over time. Stops are more frequent in Europe and Central Asia than in the other world regions and least frequent in lower income developing countries, but differences between different country groups are never statistically significant.¹⁰ As in the case of FDI surges, stops occur at different times in different developing countries and most last only a year.

3. Predicting GF-led and M&A-led FDI Surges and Stops

Estimation Approach and Variables

We inform the selection of variables that might be associated with a FDI surge or a stop by drawing on the literature on sudden stops and bonanzas. Following this literature, we conjecture that the probability of a GF-led and M&A-led surge or stop depends on three sets of factors – global, contagion (regional), and domestic (Calvo et al., 1996; Fernandez-Arias and Montiel, 1996; Dell’Erba and Reinhardt, 2012; and Forbes and

¹⁰ This inference is based on a Fischer’s exact test.

Warnock, 2012). Hence, to examine the role of these global, contagion, and domestic factors in the conditional probability of having a GF-led or M&A-led FDI surge or a stop, we estimate the model:

$$Prob(\varepsilon_{it} = 1) = \psi(G_{t-1}g + R_{i,t-1}r + D_{it-1}d), \quad (1)$$

The variable ε_{it} is an indicator of the occurrence of an event in country i and year t and is equal to one of six episode dummy variables defined as follows. The first one, s_{it} , assumes the value 1 if there is a FDI surge, either GF-led or M&A-led one, in country i and year t . In all other cases, s_{it} is 0. The dummy variable, h_{it} , equals 1 if a country i is experiencing a GF-led surge in a given year t and 0 otherwise. Finally, the dummy variable m_{it} is 1 in the case of an M&A-led surge in a given year t and country i , and 0 otherwise. In a similar fashion, three dummy variables for stops are defined: one for GF-led FDI stops, one for M&A-led FDI stops, and one for FDI stops, regardless of their kind (GF-led or M&A-led). G is a vector of variables capturing global factors, R is a vector of variables capturing regional factors, and D is a vector of variables capturing domestic factors.

Since surges and stops occur irregularly, $(.)$ is asymmetric and, therefore, we use the complementary logistic regression (see also Forbes and Warnock, 2012) which assumes that $(.)$ is the cumulative distribution function (cdf) of the extreme value distribution. We estimate the model separately for the six types of events; for the regressions on the likelihood of GF-led and M&A-led surges and stops, covariance across surge-years and stop-years is accounted for using seemingly unrelated regression, estimated with clustering of standard errors at the country level. The variables representing domestic stop or surge, GDP per capita, and natural resources are lagged by one year, and the latter two are winsorized at the 1% level.

Since economic developments in developed markets, which are the primary source of this type of finance, trigger big fluctuations in FDI flows to developing countries (Aleksynska and Havrylchyk, 2013), we include several global factors, including global risk, global liquidity, and global growth. Global risk is a volatility measure given by the VXO index of the Chicago Board Options Exchange. Global liquidity measures the availability of finance in global markets and is given by the sum of the change in the following two ratios – the ratio of stock market capitalization to GDP and the ratio of domestic private sector credit to GDP (Beck et al., 2000).¹¹ The size of the financial market is expected to be positively related to the ability to mobilize capital. Global growth measures the real growth of the world economy and is obtained from the World Development Indicators. Regional contagion reflects the extent to which surges or stops occurred in the region of the country experiencing the surge. The indicator used to measure this factor is the share of countries in the same macro region which experienced a surge in the preceding year (see also Dell’Erba and Reinhardt, 2012).

The domestic set of factors include experiencing a surge in the preceding year, experiencing a stop in the preceding year (see also Sula, 2010),¹² per capita GDP, natural resource rents as a share of GDP, and the change in the following set of variables – trade and financial openness, economic and financial stability, and political stability. We expect M&A-led surges and stops to be more prevalent in higher income developing economies (Nocke and Yeaple, 2008; Qiu and Wang, 2011) because of the presence of attractive corporate assets in terms of quality of inputs and technology¹³ and a narrower gap in

¹¹ See Forbes and Warnock (2012) for a similar operationalization of this variable.

¹² It can be expected that some surges concur with the recovery from a stop in FDI and some stops happen after a sudden surge in FDI.

¹³ Foreign firms typically ‘cherry pick’ high quality targets (Bertrand et al., 2012).

production costs between the destination and the source country.¹⁴ A large price differential between the home and host countries might make GF investments more likely as an entry mode in lower income developing economies. These differentials are needed to offset the relatively higher start-up costs associated with the construction of new facilities. Investments in resource-intensive industries also usually take the form of GF FDI. The reason for this is that local companies often have privileged access to these natural resources and, hence, host country governments prefer joint ventures in the form of GF FDI (Demirbag et al., 2008). M&A-led surges and stops are also more likely in riskier and uncertain macroeconomic environments because of the existence of discounts on the prices of existing assets (Buiter et al., 1998). Such events have been associated with fire-sale FDI during the Latin American and Asian financial crises of the 1990s (Krugman, 2000; Aguiar and Gopinath, 2005). M&A-led surges and stops have been encouraged by capital market imperfections that result in undervaluations of firm assets, sales of assets at unrealistic prices, and stripping of firms for purely financial gains. Changes in financial openness in particular might have an effect on the likelihood of an M&A-led surge or stop. Furthermore, the existence of capital controls in the form of restrictions on foreign ownership and short-selling may limit possibilities for the earlier-mentioned fire-sale FDI.¹⁵ There seems to be a strong political preference for GF investments, which are perceived to be more beneficial than M&As (Heinemann, 2012). Domestic unrest can also deter some types of FDI or trigger the pullout of investors from some markets (Schneider and Frey, 1985). Still, results from econometric studies

¹⁴ Aleksynska and Havrylchyk (2013) estimated that for the period 1996-2007, 56% of all FDI into developing countries originated from developed countries.

¹⁵ Likewise, government interventions against the takeover of domestic companies through cross-border M&A have become more common recently (Heinemann, 2012).

are ambiguous about the relationship between the degree of political stability in a country and stops in FDI inflows (Salomon and Ruiz, 2012).

The source for data on GDP, trade, and natural resource rents is the World Bank's World Development Indicators. Financial openness is represented by the Chinn and Ito (2008) capital account openness index. The International Country Risk Guide is the source for the economic, financial, and political stability measures. Definitions and sources for the independent variables are presented in Appendix A2, while descriptive statistics can be found in Appendix A3.

Econometric Results

The results from the complementary logistic regressions presented in Table 2 suggest that in general FDI surges are difficult to predict. The baseline regressions have low pseudo R^2 varying between 3% and 10% of the observed variance.¹⁶ Stops appear easier to predict in that the pseudo R^2 varies between 10% and 34%. This difference can be attributed mainly to the fact that a surge in the preceding year is a good predictor of a FDI stop, but not vice versa. Hence, it can be inferred that surges are followed by stops. At the same time, a FDI surge in the preceding year is not a good predictor of a surge and a FDI stop in the preceding year is not a good predictor of a stop.

FDI Surges

Global liquidity is associated positively with a FDI surge, regardless of its kind. Although global liquidity is only significantly correlated with the probability of a GF-led surge (Table 2), the effect of global liquidity on the likelihood of a GF-led surge does not significantly differ from the effect of global liquidity on the likelihood of an M&A-led surge ($\chi^2=0.08$, $p=0.77$). Furthermore, the effect of global liquidity on the likelihood of

¹⁶ This figure is based on McFadden's R^2 .

an M&A-led surge becomes significant under alternative definitions of a surge (Appendix Table B3),¹⁷ alternative definitions of a resource-rich economy, economic, financial and political stability (Appendix Table B7), and additional control variables (Appendix Table B11). Overall, these results suggest that loosening of global credit conditions in response to global financial crises tends to increase the frequency of FDI surges in developing countries. These results are in line with earlier findings of Di Giovanni (2005) and Baker *et al.* (2009) that the availability of cheap financial capital stimulates the expansion of multinational activity.

Regional contagion increases the probability of a surge, but not of a stop (Table 2). The result is robust when we use random effects probit, which allows for country-specific unobserved heterogeneity (Table 3). The conclusions that can be drawn from this estimation are to a large extent identical to the ones from a seemingly unrelated estimated complementary logistic regression with cluster-robust standard errors presented in Table 2. Likewise, considering a more restricted sample of events (Table 4), which excludes surges followed by stops and focuses on the so-called “sustainable” surges, did not lead to substantially different results. However, when we only focus on “sustainable” M&A-led surges and “relentless” stops (stops followed by a stop and not a surge), the effect of regional contagion on the probability of a surge becomes insignificant.

There are pronounced differences with regard to the factors that predict the onset of M&A-led and GF-led surges. Global growth is positively and significantly correlated with the incidence of M&A-led surges and FDI-surges in general, but not with GF-led surges in general. This difference in effect sizes between M&A-led and GF-led surges was

¹⁷ The increase in the FDI-to-GDP ratio is more than one and a half standard deviation above its rolling mean.

statistically significant ($\chi^2=16.56$, $p<0.01$). The result is robust across different estimation strategies, alternative definitions of surges, other variables' definitions, and additional control variables (see results in Table 3, Appendix Tables B1 and B3, Appendix Table B5 and B7, and Appendix Table B9 and B11). In the case of M&A-led surges, the result is in line with the fact that the two most recent global FDI and M&A waves took place during periods of strong economic growth, and their ends coincided with global downturns. In the case of GF-led surges, it reflects the fact that firms are often driven to invest in operations located in developing countries as a cost cutting measure and not necessarily during periods of strong global growth. However, when we only focus on sustainable surges, we find that global growth is a significant predictor for sustainable GF-led surges.

A country with lower per capita income level is significantly more likely to experience GF-led surges (Table 2). In contrast, M&A-led surges are significantly more likely in countries with higher per capita incomes. The difference in the effect of per capita income levels on the likelihood of having a GF-led versus M&A-led surge is statistically significant ($\chi^2=13.10$, $p<0.01$). These results are robust to alternative estimation (Table 3), specification methods (Appendix Tables 9 and 11), and different definitions of a surge (Appendix Tables 5 and 7).

Resource-rich countries are more likely to experience a GF-led surge, but less likely to incur an M&A-led surge. This result is not significant across estimation techniques and variable definitions, and when additional control variables are added. However, the difference in the effect sizes is statistically significant ($\chi^2=5.01$, $p=0.025$) and this result holds when we replace the natural resource variable with a dummy variable that takes the value 1 if a country is hydrocarbon or mineral-rich as defined by the IMF (Appendix B5 and B7; $\chi^2=7.26$, $p<0.01$).

In line with the fire-sale FDI hypothesis of Krugman (2000) and Aguiar and Gopinath (2002) and as shown by Bogach and Noy (2013), M&A-led surges are significantly more likely in countries which experience deterioration in economic and financial stability. Although an improvement in economic and financial stability tends to be positively associated with the probability of a GF-led surge, the variable is not significant in the baseline model and alternative tests. These results are robust to changes in the model specification, estimation technique, and variables definitions. The difference between the effects of changes in economic and financial stability on the likelihood of the two types of FDI surges is statistically significant ($\chi^2=7.83$, $p<0.01$) and becomes more pronounced under stricter definitions of a surge. The findings are supported by the results when additional control variables related to changes in domestic macroeconomic conditions are added to the model (Appendix Tables B9 and B11). A decrease in the exchange rate and an increase in the inflation rate are positively associated with the probability of M&A-led surges, but not of GF-led surges. This difference in effect size of the exchange rate variable is statistically significant ($\chi^2=9.35$, $p<0.01$).

A decrease in capital controls (i.e. increase in financial openness) is associated with a higher probability of an M&A-led surge, but not with a higher probability of a GF led surge. This finding is in line with the idea that there is a strong political preference for GF FDI and capital controls particularly affect FDI in the form of M&As. The result is robust across different definitions of a surge and independent variables, as well as additional controls, but not alternative estimation techniques. Furthermore, the difference between the effects of changes in financial openness on the probability of the two types of FDI surges is not statistically significant. Finally, global risk and changes in political stability do not affect the likelihood of an FDI surge regardless of its type in nearly all specifications.

FDI Stops

An FDI surge in the preceding year is the only significant and robust predictor of an FDI stop, regardless of its kind (Table 2). This result is in line with the recent findings of Agosin and Huaita (2012) who show that the best predictor of a sudden stop is a preceding capital boom, where stops are downward overreactions to sharp preceding positive overreactions. Tightening of global credit conditions diminishes the frequency of FDI surges, but conditional on a surge in the previous year do not necessarily have a contemporaneous effect on the likelihood of FDI stops. However, since global liquidity is a significant predictor of FDI surges, and a surge is a significant predictor of a stop in the next period, global liquidity is an important predictor of both FDI surges and stops.

A decline in global growth has a significant and positive effect on the likelihood of a FDI stop, regardless of its kind, where the difference in effect sizes between the two modes of entry is not statistically significant ($\chi^2=0.79$, $p=0.38$). This result, however, loses its significance under stricter definitions of stops, be they GF-led or M&A-led (Appendix Tables B2 and B4).

GF-led and M&A-led FDI stops are, on average, more likely in poorer and richer countries, respectively. The effect itself is not significant, but the difference in effect sizes is statistically significant ($\chi^2=4.57$, $p=0.033$) and becomes pronounced under stricter definitions of FDI stops (Appendix Tables B2 and B4). This difference in effect sizes holds under alternative estimation methods and variable definitions and when additional variables are included.

The frequency of FDI stops is not higher in resource-rich countries than elsewhere in the world. Resource-rich economies appear to be more likely to have GF-led episodes and less likely to have M&A-led episodes, but these average effects are not significant across

a range of alternative model and variables' specifications. Moreover, the difference in effect sizes of natural resources on GF-led and M&A-led stops is not statistically significant ($\chi^2=1.70$, $p=0.192$) in the baseline model in Table 2 as well as in the model using the alternative definition of natural resources (Appendix Tables B6 and B8; $\chi^2=1.29$, $p=0.257$).

Removal of capital controls increases the probability of an M&A-led stop, but not of a GF-led stop. The difference in effect sizes is statistically significant ($\chi^2=7.05$, $p<0.01$) and holds when we control for changes in trade openness and tariffs (Appendix Tables B10 and B12), but this result becomes less pronounced under stricter definitions of a stop (Appendix Tables B2 and B4). Global risk and changes in political, economic, and financial stability do not affect the likelihood of a FDI stop regardless of its type and model specification.

Table 2: Regression Results on Likelihood of a FDI Surge and Stop – Complementary Logistic Regression Estimates

	Surges			Stops		
	All	GF-led	M&A-led	All	GF-led	M&A-led
Global Factors						
Global Risk	0.015 (.013)	0.010 (.014)	0.045 (.028)	0.023 (.010)*	0.013 (.013)	0.046 (.031)
Global Liquidity	0.014 (.003)**	0.013 (.004)**	0.015 (.007)	0.003 (.003)	0.002 (.003)	0.003 (.006)
Global Growth	0.150 (.055)**	0.076 (.058)	0.542 (.097)**	-0.127 (.042)**	-0.112 (.053)*	-0.235 (.112)*
Regional Contagion	0.020 (.006)**	0.021 (.008)*	0.032 (.015)*	0.000 (.006)	-0.007 (.010)	0.028 (.017)
Domestic Factors						
Stop previous year	0.217 (.180)	0.263 (.231)	0.685 (.501)	-0.391 (.218)	-0.735 (.332)*	0.848 (.612)
Surge previous year	-0.182 (.183)	-0.014 (.205)	-0.195 (.540)	1.623 (.141)**	1.533 (.153)**	3.915 (.317)**
GDP per Capita (ln)	-0.082 (.023)**	-0.148 (.034)**	0.173 (.068)*	-0.008 (.028)	-0.067 (.036)	0.106 (.068)
Natural Resources	0.001 (.003)	0.007 (.003)*	-0.036 (.018)*	0.002 (.003)	0.006 (.003)*	-0.007 (.009)
Δ Financial Openness	0.181 (.132)	0.118 (.165)	0.433 (.212)*	-0.069 (.156)	-0.247 (.195)	0.708 (.247)**
Δ Economic and Financial Stability	0.002 (.013)	0.020 (.015)	-0.068 (.027)*	-0.004 (.017)	-0.011 (.018)	0.026 (.031)
Δ Political Stability	-0.030 (.018)	-0.038 (.020)	0.011 (.042)	-0.025 (.019)	-0.031 (.021)	0.013 (.041)
Number of Observations	1768	1768	1768	1768	1768	1768
Number of Countries	95	95	95	95	95	95
Number of Surges or Stops	264	207	57	282	225	57
Pseudo R ²	0.034	0.033	0.102	0.125	0.104	0.340
*p<0.05, **p<0.01; cluster-robust standard errors in parentheses.						

Table 3: Regression Results on Likelihood of a FDI Surge and Stop – Random Effects Probit Estimates

	Surges			Stops		
	All	GF-led	M&A-led	All	GF-led	M&A-led
Global Factors						
Global Risk	0.010 (.007)	0.006 (.007)	0.024 (.012)	0.013 (.008)	0.007 (.008)	0.021 (.016)
Global Liquidity	0.008 (.002)**	0.007 (.002)**	0.006 (.004)	0.001 (.002)	0.001 (.002)	0.001 (.003)
Global Growth	0.086 (.032)**	0.038 (.033)	0.250 (.068)**	-0.094 (.030)**	-0.076 (.031)*	-0.110 (.056)
Regional Contagion	0.012 (.004)**	0.013 (.005)*	0.019 (.010)*	0.033 (.372)	-0.372 (.472)	0.014 (.011)
Domestic Factors						
Stop previous year	0.140 (.103)	0.172 (.117)	0.327 (.265)	-0.221 (.132)	-0.368 (.163)*	0.342 (.326)
Surge previous year	-0.101 (.110)	-0.004 (.125)	-0.132 (.329)	1.108 (.131)**	1.003 (.102)**	2.261 (.199)**
GDP per Capita (ln)	-0.048 (.021)*	-0.083 (.023)**	0.082 (.036)*	-0.002 (.022)	-0.036 (.023)	0.077 (.042)
Natural Resources	0.001 (.002)	0.004 (.002)	-0.013 (.005)*	0.002 (.003)	0.004 (.002)	-0.002 (.005)
Δ Financial Openness	0.181 (.132)	0.078 (.096)	0.166 (.155)	-0.039 (.096)	-0.131 (.102)	0.316 (.161)*
Δ Economic and Financial Stability	0.002 (.013)	0.013 (.009)	-0.030 (.015)*	-0.004 (.009)	-0.007 (.009)	0.016 (.016)
Δ Political Stability	-0.018 (.012)	-0.022 (.013)	0.009 (.021)	-0.018 (.013)	-0.018 (.013)	-0.002 (.025)
Number of Observations	1768	1768	1768	1768	1768	1768
Number of Countries	95	95	95	95	95	95
Number of Surges or Stops	264	207	57	282	225	57
*p<0.05, **p<0.01; cluster-robust standard errors in parentheses. Dependent variable is a 0-1 variable indicating if there is a surge or stop episode (either GF-led surge or an M&A dominated surge). The variables Regional Contagion, GDP per capita and Natural Resources are lagged (one year). The variables GDP per capita and natural resources are windsorized at the 1% level.						

Table 4: Sustainable Surges and Relentless Stops

	Sustainable Surges: Surges not followed by Stops			Relentless Stops: Stops not followed by Surges		
	All	GF-led	M&A-led	All	GF-led	M&A-led
Global Factors						
Global Risk	-0.006 (.007)	0.002 (.017)	0.025 (.043)	0.024 (.013)	0.015 (.014)	0.051 (.034)
Global Liquidity	0.015 (.005)**	0.011 (.006)*	0.017 (.011)	0.003 (.003)	0.002 (.003)	0.001 (.007)
Global Growth	0.215 (.088)*	0.195 (.092)*	0.710 (.180)**	-0.143 (.051)**	-0.117 (.059)*	-0.237 (.118)*
Regional Contagion	0.023 (.007)**	0.020 (.009)*	0.027 (.024)	0.002 (.675)	-0.010 (.011)	0.025 (.018)
Domestic Factors						
Stop previous year	0.351 (.240)	0.444 (.281)	0.963 (.653)	-0.352 (.268)	-0.636 (.358)	1.062 (.619)
Surge previous year	-0.422 (.280)	-0.293 (.320)	0.176 (.596)	1.663 (.142)**	1.559 (.154)**	4.098 (.34)**
GDP per Capita (ln)	-0.051 (.044)	-0.109 (.052)*	0.226 (.103)*	-0.027 (.038)	-0.091 (.038)*	0.084 (.079)
Natural Resources	0.003 (.005)	-0.000 (.005)	-0.021 (.018)	0.002 (.004)	0.006 (.003)*	-0.004 (.010)
Δ Financial Openness	0.166 (.190)	0.049 (.211)	0.768 (.261)**	0.141 (.166)	-0.027 (.183)	0.801 (.241)**
Δ Economic and Financial Stability	0.013 (.018)	0.029 (.017)	-0.087 (.037)*	0.002 (.015)	-0.002 (.019)	0.029 (.033)
Δ Political Stability	0.002 (.023)	-0.002 (.023)	-0.031 (.057)	-0.033 (.023)	-0.038 (.023)	0.019 (.043)
Number of Observations	1768	1768	1768	1768	1768	1768
Number of Countries	95	95	95	95	95	95
Number of Surges or Stops	152	132	29	228	188	51
*p<0.05, **p<0.01; cluster-robust standard errors in parentheses. Dependent variable is a 0-1 variable indicating if there is a surge or stop episode (either GF-led surge or an M&A-led surge). The variables Regional Contagion, GDP per capita and Natural Resources are lagged (one year). The variables GDP per capita and natural resources are windsorized at the 1% level.						

Sensitivity Analysis

This section provides an overview of the most important results from the sensitivity analysis presented in Appendix B, but not discussed in the previous paragraph. The estimations which use alternative variable definitions (Appendix Tables B5-B8) and additional control variables (Appendix Tables B9-B12) did not yield very different results.

Differences with the baseline regression under different definitions of FDI surges and stops (Appendix Tables B1-B4) were most pronounced. Under the strictest definition the number of surges and stops falls down to 143 (8.0% of the all country-years) and 108 (6.1% of all the country-years), respectively. Compared to the baseline regressions, the effect of global growth on the likelihood of GF-led and M&A-led stops, the effect of regional contagion on the likelihood of GF-led surges, and the effect of a stop in the preceding year on GF-led stops lose their significance under stricter definitions of a surge or stop. In addition to the differences described above, a decrease in political stability has a positive and significant effect on the likelihood of a GF-led surge under some of the stricter definitions of a surge. This result can be explained by the fact that some firms try to take advantage of new opportunities that arise through the changes in political regimes and reap the benefits in conflict locations through first mover advantages or market power. In particular, firms in the primary sector (which mainly enter through GF FDI) would be less deterred by a decrease in political stability because activities in this sector are bound by physical geography and risk adjusted rents are higher (Burger et al. 2013).

4. Concluding Remarks

This paper investigates the factors triggering FDI surges and stops episodes, differentiated based on whether these events are led by waves in GF investments or M&As. In particular, we analyze the effect of the mode of entry on the incidence and

determinants of FDI surges and stops in the developing world. The focus on this topic is warranted because during the past decade there has been a significant increase of FDI flows to developing countries but the rise has not proceeded in a smooth fashion, prompting concerns about sudden stops even in countries where FDI inflows dominate capital flows. Furthermore, whereas most global FDI waves have been associated with an increase in M&As, it is not clear to what extent GF investments have contributed to surges and stops in FDI in developing countries. It is important to answer this question because GF investments dominate FDI flows to the developing world, especially in resource-rich and low-income countries, and as shown in the paper, GF-led surge and stop episodes occur more frequently than M&A-led ones.

This paper contributes to the literature by constructing a database of episodes when foreign investors substantially increase or decrease FDI inflows to developing countries and distinguish between these episodes based on the dominance of the entry mode. We use this database to document the incidence of FDI surges and stops by mode of entry, region, and resource status. Using this database, we analyze the factors associated with GF-led and M&A-led surge and stop events and show that the two types of surges and stops have different incidence and determinants, and therefore must be studied separately. Our analysis shows that global liquidity is the only common predictor of different types of FDI surges, while a decline in global growth and an FDI surge in the preceding year are the only significant and consistent predictors of FDI stops. GF-led stops and surges are more likely in low income and resource-rich countries than elsewhere. Policies aimed at increasing financial openness are enablers of M&A-led surges, which are also more likely during periods of global growth and domestic economic and financial instability.

The results are policy relevant as the paper shows that GF-led extreme events occur more frequently than M&A-led ones. Thus, countries relying mostly on GF FDI, the more stable type of FDI inflows, are not immune to sudden stops in capital flows and should prepare to withstand them. Knowledge of the factors behind different types of FDI surges and stops can help policy makers in developing countries, especially those relying heavily on FDI flows, prepare to weather such events.

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Appendix A1: Surge-Years and Stop-Years by Country; Increases and Decreases of 2 Standard Deviations, Top or Bottom 20th Percentile, Denoted by an Asterisk (*)

Country	First Year	Last Year	Average Annual Growth (percentage points)	GF-led Surges	M&A-led Surges	GF-led Stops	M&A-led Stops
Albania	1996	2010	0.42	2000*, 2007		1994, 2002	2005
Algeria	1991	2010	0.08	2001		1999*, 2003, 2010*	
Angola	1994	2010	-0.33	1995, 1998*, 1999*		1996, 2000*	
Argentina	1991	2010	-0.00		1999*	1993, 2009*	1998, 2000*
Armenia	1999	2010	0.33	2006	2004	2010*	1999*, 2005
Azerbaijan	1999	2010	0.06	2002*	2003	1998, 1999, 2000	2005*
Bahrain	1991	2010	-0.98	1991*, 1996, 2006*		1993*, 1997, 2007*, 2009	
Bangladesh	1991	2010	0.05			1999, 2009	
Belarus	1999	2010	0.14	1999	2007	1998*, 2000*, 2010	
Bolivia	1991	2010	0.06	2006*	1995*, 1997*	2000*, 2003*	
Botswana	1991	2010	0.21	2002*, 2009*		1991, 1993*, 1999, 2010*	
Brazil	1991	2010	0.10	1999, 2004	1997, 1998	2003, 2009	2001*, 2002
Burkina Faso	1991	2010	0.02	1994	2007*	2001, 2008	
Cameroon	1991	2010	0.07	1996, 1998*, 2000, 2002*, 2009*		1999*, 2003, 2010	
Chile	1991	2010	0.31	1994*, 1996, 2007	1999*		2000*
China	1991	2010	-0.01	1992, 1993*		1995, 2006	
Colombia	1991	2010	0.06	1997	1996*, 2005	1995, 1998*	2006
Congo-Brazzaville	1991	2010	1.13	1993*, 1999*, 2005		1992, 1994*, 2000*, 2008*	

Congo-Kinshasa	1991	2010	1.23	1998, 2003*, 2007*, 2010		1997*, 2005*	2009
Costa Rica	1991	2010	0.08	1998, 2004, 2006*	2002	2000*	2009*
Côte d'Ivoire	1991	2010	0.05	1993, 1998*	1997*	1999*	
Croatia	1999	2010	0.03		1999*, 2006	2002, 2009, 2010*	2000*, 2004
Dominican Republic	1991	2010	1.23	1995, 1997, 2007, 2008*	1999	1996*, 2000, 2009	
Ecuador	1991	2010	0.12	1993, 2001, 2008*		1995, 2000*	
Egypt	1991	2010	0.11	1993, 2004*, 2005*, 2006		2008*	2001, 2009
El Salvador	1991	2010	0.02		1998*, 2007*		1999*, 2006, 2008
Ethiopia	1991	2010	0.06	1997*, 2001, 2003		1999*, 2005*, 2007	
Gabon	1991	2010	0.04	1992, 1998*, 2010*		1993, 1995, 1999, 2005	
Gambia	1991	2010	0.11	1999*, 2002, 2004		1991, 2003, 2009	
Ghana	1991	2010	0.42	1993, 1994*, 2006*, 2009		1995*, 2001*	
Guatemala	1991	2010	0.05		1998*		1999*
Guinea	1991	2010	0.10	1999*, 2002, 2003, 2007*		1992, 2000*, 2009*	
Guinea-Bissau	1991	2010	0.18	1997, 2004, 2006*, 2010		1998, 2008*	
Haiti	1992	2010	0.14	2006*		1992, 2007*	
Honduras	1991	2010	0.22	2007, 2010	1999*, 2000	1998, 2009*	2001
Hong Kong SAR, China	1991	2010	1.55	1993, 1998, 1999*, 2000*	2010	2001*	2009
India	1991	2010	0.07	2006*, 2008		2010	2009*
Indonesia	1991	2010	0.04	1995	2005	1998*	2006
Iran	1991	2010	0.05	2002*		2003, 2006	

Iraq	2001	2010	0.27	2003*		2004*	
Jamaica	1991	2010	-0.15	1998*, 1999, 2003, 2008		1993, 2000, 2004, 2009*	2002*
Jordan	1991	2010	0.29	1997*, 2005, 2006	2000*	1991*, 1993, 1999, 2007*	2001*
Kazakhstan	1999	2010	0.39	1999*, 2001*, 2006		2000, 2002, 2003, 2005, 2010	
Kenya	1991	2010	0.03		2007*	2001	2008*
Kuwait	1991	2010	0.00	1996, 2009		1997*, 2010	
Lebanon	1991	2010	0.59	1997*, 2003*		1998, 2004, 2010	
Liberia	1991	2010	3.07	1994, 1997*, 2003*	2010*	1991*, 1996, 2004	
Libya	1991	2010	0.13	2005, 2006, 2007*		2001, 2008*	2010*
Madagascar	1991	2010	0.51	1999, 2006*, 2007*		2002, 2010	
Malawi	1991	2010	0.08	1994, 1999*		1991*, 1995, 2002, 2005*	
Malaysia	1991	2010	-0.25	1991, 1999, 2002*, 2010*		1994*, 1998, 2001*, 2009*	2008
Mali	1991	2010	0.29	1995*, 2000, 2002, 2009*		1992, 1996*, 1998, 2003*, 2010	
Mexico	1991	2010	0.05	1994*, 2007	2001*		2002*
Moldova	1999	2010	0.15	2000*, 2007		2009*	2001
Mongolia	1991	2010	1.51	1997, 1999, 2000*, 2003*, 2008*, 2010*		1992, 2004*	
Morocco	1991	2010	0.02	1999	1997*, 2001*	2000, 2005	1998*, 2002*
Mozambique	1991	2010	0.51	1998, 1999, 2007, 2009		2000*	
Namibia	1995	2010	0.13	2000*, 2001*, 2007		1993, 1999, 2002, 2009	
Nicaragua	1991	2010	0.35	1991*, 1995, 1997*, 1999*, 2007, 2008*		2000, 2001, 2009*	

Niger	1991	2010	0.82	1992, 2007*, 2008*, 2009*		1991, 1993*, 2002	
Nigeria	1991	2010	-0.02	1996, 2005*		1995, 1997, 2004, 2006, 2010	
Oman	1991	2010	0.06	2003*, 2005*, 2007		2004, 2008	
Pakistan	1991	2010	0.03	2005	2006*	1995, 2009*	
Panama	1991	2010	0.38	1996	1997*, 2003*, 2006*	1995*, 2009	1998, 1999, 2007
Papua New Guinea	1991	2010	-0.12	1995*, 2007, 2009*		1991, 1996, 2000, 2010*	2008
Paraguay	1991	2010	-0.04	1997, 1998		1993*, 1999*, 2009	
Peru	1991	2010	0.31	1993*, 2002	1994*	1997, 2003	1995
Philippines	1991	2010	-0.04		1998, 2000, 2002	1999, 2008	2001*
Qatar	1991	2010	0.18	1996*, 2002, 2005, 2009*		1995, 1999*, 2008*, 2010	
Russian Federation	1998	2010	0.15		2003, 2006	2000, 2009*	2005
Saudi Arabia	1991	2010	0.35	2005*		2010*	
Senegal	1991	2010	0.10	1994*, 2006*	1997*	1991*, 1995	1998
Sierra Leone	1991	2010	0.26	2000*, 2004		2001*, 2008	
Singapore	1991	2010	0.98	1993, 1999*, 2003, 2006		1991, 1992, 1998*, 2002, 2008*	
Somalia	1991	2010	0.58	2005, 2006*, 2010		2008*	
South Africa	1991	2010	0.02		1997*, 2001, 2007*		1998*, 2002
South Korea	1991	2010	0.04		1998		2001
Sri Lanka	1991	2010	-0.01		1997*	1995, 2009	1998*
Sudan	1991	2010	0.14	1994, 1997, 1998*	2003	1995	2004, 2007*
Syrian Arab Republic	1991	2010	0.15	1999, 2007		2001	
Tanzania	1991	2010	0.23	1995*, 1999*, 2005*		2000, 2006*	
Thailand	1991	2010	0.06	1997*	1998*	1991*, 2000, 2009	1999, 2008*

Togo	1991	2010	0.19	1994*, 2000, 2001, 2010		1992, 1996, 2002*, 2003, 2007	
Trinidad and Tobago	1991	2010	-0.02	1993*, 1997*	2007*	1995*, 2005	1998, 2009*
Tunisia	1991	2010	0.00	1992*	1998*, 2000*, 2006*	1995, 1996, 2001, 2003	1999, 2007*
Turkey	1991	2010	0.05	2001*	2005, 2006	2002*	2008, 2009
Uganda	1994	2010	0.17	2006*		2008*, 2010	
Ukraine	1999	2010	0.25	2003	2005*		2006
United Arab Emirates	1991	2010	0.09	2001, 2003*, 2004		1994, 1999*, 2002, 2005, 2008, 2009	
Uruguay	1991	2010	0.31	2003*, 2005, 2006		2004, 2007, 2009	
Venezuela	1991	2010	-0.17	1992*, 1997, 2003*		1991*, 1993*, 1998, 2006	1999
Viet Nam	1991	2010	0.16	1991, 1994*, 2007*		1995*, 2009	
Yemen	1996	2010	-0.85		2006*	1994*, 2005, 2009	
Zambia	1991	2010	0.52	1993*, 2002, 2007*	2010	1991*, 1994*, 2005, 2008	
Zimbabwe	1991	2010	0.11	1998*, 2005*		1999*, 2006	

Appendix A2 – Definitions of Variables Included in Baseline Regression

Name	Definition	Source
Global Factors		
Global Risk	Volatility index measuring	Chicago Board Options Exchange
Global Liquidity	Sum of the change in the stock market capitalization to GDP ratio and domestic private sector credit to GDP ratio	World Bank Development Indicators
Global Growth	Growth in Real GDP	World Bank Development Indicators
Regional Contagion (FDI surges; GF-led surges; M&A-led surges; FDI stops; GF-led stops; M&A-led stops)	Percentage of countries located in the same world region (East Asia Europe and Central Asia, East Asia and Pacific, Latin America and Caribbean, Middle East and North Africa, South Asia, or Sub-Saharan Africa) experiencing the same event in the preceding year.	Own estimation
Domestic Factors		
Stop previous year (FDI stops; GF-led stops; M&A-led stops)	Takes value 1 if the country experienced a stop in the preceding year.	Own estimation
Surge previous year (FDI surges; GF-led surges; M&A-led surges)	Takes value 1 if the country experienced a surge in the preceding year.	Own estimation
GDP per Capita (ln)	Natural logarithm of real GDP per capita	World Bank Development Indicators
Natural Resources	Natural resources rents to GDP ratio	World Bank Development Indicators
Change Financial Openness	Change in the degree of openness to cross-border capital transactions.	Chinn and Ito (2008)
Change Economic and Financial Stability	Change in the sum of the economic stability and financial stability index. Economic stability is a composite score based on the economic risk assessment of the ICRG, which takes in GDP per capita, Real GDP growth, annual inflation, budget balance as percentage of GDP, and current account as percentage of GDP. Financial stability is a composite score based on the financial risk assessment of the ICRG, which takes in foreign debt as a percentage of GDP, foreign debt service as a	International Country Risk Guide

	percentage of exports of goods and services, current account as a percentage of exports of goods and services, net international liquidity as months of import cover, and exchange rate stability. A higher score indicates an improvement in stability.	
Change Political Stability	Change in the sum of the political stability index. The political risk index is a composite index consisting of 12 scores: (1) investment profile, (2) law and order, (3) bureaucracy quality, (4) corruption, (5) democracy, (6) government stability, (7) military in politics, (8) socio-economic conditions, (9) ethnic tensions, (10) religious tensions, (11) internal conflict, and (12) external conflict. A higher score indicates an improvement in stability.	International Country Risk Guide

Appendix A3 – Descriptive Statistics of Independent Variables in Baseline Regression (N=1768)

	Mean	Standard Deviation	Minimum	Maximum
Global Factors				
Global Risk	21.21	6.97	12.15	34.66
Global Liquidity	2.85	21.70	-66.28	34.83
Global Growth	2.71	1.49	-2.25	4.33
Regional Contagion (FDI surges)	14.90	10.36	0	50.00
Regional Contagion (GF-led surges)	11.78	8.41	0	36.36
Regional Contagion (M&A-led surges)	3.12	5.51	0	30.00
Regional Contagion (FDI stops)	14.92	11.57	0	100.0
Regional Contagion (GF-led stops)	11.73	9.41	0	75.0
Regional Contagion (M&A-led stops)	3.18	5.74	0	40.0
Domestic Factors				
Stop previous year (FDI stops)	0.15	0.36	0	1
Stop previous year (GF-led stops)	0.12	0.32	0	1
Stop previous year (M&A-led stops)	0.03	0.18	0	1
Surge previous year (FDI stops)	0.15	0.36	0	1
Surge previous year (GF-led stops)	0.12	0.32	0	1
Surge previous year (M&A-led stops)	0.03	0.17	0	1
GDP per Capita (ln)	24.62	1.80	20.76	28.44
Natural Resources	12.29	16.29	0	85
Change Financial Openness	0.04	0.42	-2.56	3.25
Change Economic and Financial Stability	0.90	4.72	-27.83	24.95
Change Political Stability	0.55	3.53	-19.92	29.75

Appendix B: Sensitivity Analysis

Alternative definitions of surges and stops (B1-B4):

Surges

Alternative Definition 1: 1 standard deviation above the 5 year average and falling within the top 20th percentile of the entire sample's FDI-to-GDP ratio growth

Alternative Definition 2: 1.5 standard deviation above the 5 year average and falling within the top 25th percentile of the entire sample's FDI-to-GDP ratio growth

Alternative Definition 3: 1.5 standard deviations above the 5 year average and falling within the top 20th percentile of the entire sample's FDI-to-GDP ratio growth

Alternative Definition 4: 2 standard deviations above the 5 year average and falling within the top 25th percentile of the entire sample's FDI-to-GDP ratio growth

Alternative Definition 5: 2 standard deviations above the 5 year average and falling within the top 20th percentile of the entire sample's FDI-to-GDP ratio growth

Stops

Alternative Definition 1: 1 standard deviation below the 5 year average and falling within the bottom 20th percentile of the entire sample's FDI-to-GDP ratio growth

Alternative Definition 2: 1.5 standard deviation below the 5 year average and falling within the bottom 25th percentile of the entire sample's FDI-to-GDP ratio growth

Alternative Definition 3: 1.5 standard deviations below the 5 year average and falling within the bottom 20th percentile of the entire sample's FDI-to-GDP ratio growth

Alternative Definition 4: 2 standard deviations below the 5 year average and falling within the bottom 25th percentile of the entire sample's FDI-to-GDP ratio growth

Alternative Definition 5: 2 standard deviations below the 5 year average and falling within the bottom 20th percentile of the entire sample's FDI-to-GDP ratio growth

Alternative variable definitions (B5-B8):

1. Replace sum of the change in the stock market capitalization to GDP ratio and domestic private sector credit to GDP ratio by global interest rate measure: The global liquidity measure is now based on the global interest rate. The global interest rate is measured as the average of the long-term bond yields in Japan, Germany, the United Kingdom, and the United States, using data from the IMF's International Financial Statistics.

2. Replacing Natural Resources Rents to GDP ratio by Resource-Rich dummy variable: Natural resources are now measured as a dummy variable that take the value 1 if a country is Hydrocarbon or Mineral Rich as defined by the IMF.

3-4. Replace Change in Economic and Financial Stability by Change in Economic Risk (3) or Change in Financial Stability (4; See Appendix A2 for definitions of these variables).

5-7. Replace Change in Political Stability by one of the indices related to (1) Absence of Conflict, (2) Institutional Quality or (3) Democracy. These indices are based on the ICRG data. Absence of Conflict is a composite score consisting of internal conflict and external conflict. Institutional Quality is a composite score consisting of investment

profile, law and order, bureaucracy quality, corruption and government stability.

Democracy is a composite score based on democracy and military in politics.

Variables Added to Baseline Specification (B9-B12)

1. Region Dummies: Dummy variables indicating world region (East Asia and Pacific, Europe and Central Asia, Latin America and Caribbean, Middle East and North Africa, South Asia or Sub-Saharan Africa) in which the country is situated.

2. Domestic GDP Growth: Real GDP Growth, World Development Indicators, World Bank.

3. Change in Exchange Rate: Change in natural logarithm of the local currency unit-to-US dollar ratio, World Development Indicators, World Bank.

4. Change in Inflation: Change in inflation at consumer prices, World Development Indicators, World Bank.

5. Change in Trade Intensity: Change in Trade-to-GDP ratio, where trade is measured as the sum of exports and imports, World Development Indicators.

6. Change in Tariffs: Change in average tariff applied (unweighted), World Development Indicators, World Bank and Nicita (2007).

7. Country size: Measured by population, World Development Indicators, World Bank.

Appendix Table B1: Sensitivity Analysis – GF-Led Surges: Alternative Definitions of Surge

	Baseline Regression	1 SD, Top 20% Percentile	1.5 SD, Top 25% Percentile	1.5 SD, Top 20% Percentile	2 SD, Top 25% Percentile	2 SD, Top 20% Percentile
Global Factors						
Global Risk	0.010 (.014)	0.013 (.015)	0.020 (.017)	0.024 (.018)	0.021 (.019)	0.025 (.020)
Global Liquidity	0.013 (.004)**	0.011 (.004)*	0.013 (.004)**	0.010 (.004)*	0.015 (.005)**	0.012 (.005)*
Global Growth	0.076 (.058)	0.084 (.059)	0.076 (.071)	0.070 (.074)	0.049 (.073)	0.061 (.079)
Regional Contagion	0.021 (.008)*	0.018 (.010)	0.009 (.012)	0.008 (.015)	0.019 (.015)	0.027 (.017)
Domestic Factors						
Stop previous year	0.263 (.231)	0.390 (.238)	0.258 (.259)	0.379 (.271)	0.156 (.455)	0.204 (.492)
Surge previous year	-0.014 (.205)	-0.021 (.288)	-0.147 (.285)	-0.287 (.396)	-0.020 (.341)	-0.147 (.457)
GDP per Capita (ln)	-0.148 (.034)**	-0.171 (.038)**	-0.137 (.041)**	-0.168 (.045)**	-0.130 (.044)**	-0.177 (.047)**
Natural Resources	0.007 (.003)*	0.010 (.004)*	0.009 (.003)**	0.011 (.004)**	0.010 (.003)**	0.011 (.004)**
Δ Financial Openness	0.118 (.165)	0.129 (.166)	0.252 (.173)	0.285 (.186)	0.439 (.138)**	0.447 (.151)**
Δ Economic and Financial Stability	0.020 (.015)	0.017 (.016)	0.018 (.018)	0.025 (.018)	0.018 (.017)	0.023 (.019)
Δ Political Stability	-0.038 (.020)	-0.052 (.022)*	-0.034 (.024)	-0.066 (.025)**	-0.029 (.025)	-0.057 (.027)*
Number of Observations	1768	1768	1768	1768	1768	1768
Number of Countries	95	95	95	95	95	95
Number of Surge Years	207	175	160	136	125	107
*p<0.05, **p<0.01; cluster-robust standard errors in parentheses. Dependent variable is a 0-1 variable indicating whether there is a surge episode (either GF-led surge or an M&A-led surge). All models are estimated using complementary logistic regression. The variables GDP per capita and natural resources are windsorized at the 1% level. Covariance across surge episodes is accounted for using seemingly unrelated estimated with clustering of standard errors at the country level. Alternative Definition Column 1: 1 standard deviation from the 5 year average and falling within the top 20th percentile of the entire sample's FDI-to-GDP ratio growth Alternative Definition Column 2: 1.5 standard deviation from the 5 year average and falling within the top 25th percentile of the entire sample's FDI-to-GDP ratio growth Alternative Definition Column 3: 1.5 standard deviations from the 5 year average and falling within the top 20th percentile of the entire sample's FDI-to-GDP ratio growth Alternative Definition Column 4: 2 standard deviations from the 5 year average and falling within the top 25th percentile of the entire sample's FDI-to-GDP ratio growth Alternative Definition Column 5: 2 standard deviations from the 5 year average and falling within the top 20th percentile of the entire sample's FDI-to-GDP ratio growth						

Appendix Table B2: Sensitivity Analysis – GF-Led Stops: Alternative Definitions of Stops

	Baseline Regression	1 SD, Bottom 20% Percentile	1.5 SD, Bottom 25% Percentile	1.5 SD, Bottom 20% Percentile	2 SD, Bottom 25% Percentile	2 SD, Bottom 20% Percentile
Global Factors						
Global Risk	0.013 (.013)	0.032 (.016)*	0.008 (.015)	0.024 (.016)	0.002 (.020)	0.021 (.024)
Global Liquidity	0.002 (.003)	0.004 (.003)	0.000 (.004)	0.001 (.004)	-0.002 (.004)	-0.001 (.005)
Global Growth	-0.112 (.053)*	-0.065 (.059)	-0.106 (.061)	-0.063 (.067)	-0.132 (.076)	-0.083 (.085)
Regional Contagion						
	-0.007 (.010)	-0.019 (.011)	-0.025 (.016)	-0.024 (.020)	-0.048 (.030)	-0.050 (.038)
Domestic Factors						
Stop previous year	-0.735 (.332)*	-0.398 (.365)	-0.498 (.420)	-0.292 (.462)	-1.44 (1.02)	-1.00 (1.02)
Surge previous year	1.533 (.153)**	1.823 (.169)**	1.588 (.190)**	1.882 (.206)**	1.581 (.211)**	1.858 (.243)**
GDP per Capita (ln)	-0.067 (.036)	-0.115 (.042)**	-0.059 (.038)	-0.116 (.043)**	-0.072 (.049)	-0.128 (.049)**
Natural Resources	0.006 (.003)*	0.006 (.003)*	0.007 (.003)*	0.008 (.003)**	0.001 (.006)	0.005 (.006)
Δ Financial Openness	-0.247 (.195)	-0.398 (.199)*	-0.284 (.228)	-0.491 (.210)*	-0.225 (.306)	-0.499 (.269)
Δ Economic and Financial Stability	-0.011 (.018)	-0.014 (.021)	-0.029 (.022)	-0.036 (.025)	-0.046 (.025)	-0.055 (.028)
Δ Political Stability	-0.031 (.021)	-0.031 (.021)	-0.020 (.027)	-0.023 (.029)	-0.018 (.035)	-0.021 (.036)
Number of Observations	1768	1768	1768	1768	1768	1768
Number of Countries	95	95	95	95	95	95
Number of Stop Years	225	182	159	130	108	85
*p<0.05, **p<0.01; cluster-robust standard errors in parentheses. Dependent variable is a 0-1 variable indicating whether there is a surge episode (either GF-led surge or an M&A-led surge). All models are estimated using complementary logistic regression. The variables GDP per capita and natural resources are windsorized at the 1% level. Covariance across surge episodes is accounted for using seemingly unrelated estimated with clustering of standard errors at the country level. Alternative Definition Column 1: 1 standard deviation from the 5 year average and falling within the bottom 20th percentile of the entire sample's FDI-to-GDP ratio growth Alternative Definition Column 2: 1.5 standard deviation from the 5 year average and falling within the bottom 25th percentile of the entire sample's FDI-to-GDP ratio growth Alternative Definition Column 3: 1.5 standard deviations from the 5 year average and falling within the bottom 20th percentile of the entire sample's FDI-to-GDP ratio growth Alternative Definition Column 4: 2 standard deviations from the 5 year average and falling within the bottom 25th percentile of the entire sample's FDI-to-GDP ratio growth Alternative Definition Column 5: 2 standard deviations from the 5 year average and falling within the bottom 20th percentile of the entire sample's FDI-to-GDP ratio growth						

Appendix Table B3: Sensitivity Analysis – M&A-led Surges: Alternative Definitions of Surge

	Baseline Regression	1 SD, Top 20% Percentile	1.5 SD, Top 25% Percentile	1.5 SD, Top 20% Percentile	2 SD, Top 25% Percentile	2 SD, Top 20% Percentile
Global Factors						
Global Risk	0.045 (.028)	0.040 (.028)	0.067 (.031)*	0.057 (.032)	0.060 (.034)	0.055 (.035)
Global Liquidity	0.015 (.007)	0.017 (.009)	0.023 (.009)**	0.022 (.009)*	0.019 (.010)	0.018 (.010)
Global Growth	0.542 (.097)**	0.576 (.115)**	0.576 (.101)**	0.564 (.120)**	0.553 (.111)**	0.562 (.129)**
Regional Contagion	0.032 (.015)*	0.071 (.029)*	0.057 (.029)*	0.097 (.041)*	0.030 (.046)	0.049 (.052)
Domestic Factors						
Stop previous year	0.685 (.501)	0.613 (.562)	0.286 (.772)	-0.212 (1.08)	X	X
Surge previous year	-0.195 (.540)	-0.791 (.852)	-1.289 (.895)	X	X	X
GDP per Capita (ln)	0.173 (.068)*	0.137 (.068)*	0.156 (.073)*	0.109 (.071)	0.099 (.076)	0.067 (.078)
Natural Resources	-0.036 (.018)*	-0.036 (.016)*	-0.034 (.020)	-0.033 (.019)	-0.054 (.030)	-0.048 (.027)
Δ Financial Openness	0.433 (.212)*	0.414 (.202)*	0.524 (.212)**	0.509 (.227)*	0.569 (.242)*	0.547 (.243)*
Δ Economic and Financial Stability	-0.068 (.027)*	-0.041 (.027)	-0.086 (.029)**	-0.057 (.028)*	-0.113 (.033)**	-0.076 (.029)**
Δ Political Stability	0.011 (.042)	0.000 (.050)	0.034 (.046)	0.011 (.056)	0.042 (.049)	0.022 (.056)
Number of Observations	1768	1768	1768	1768	1768	1768
Number of Countries	95	95	95	95	95	95
Number of Surge Years	57	52	48	44	38	36
*p<0.05, **p<0.01; cluster-robust standard errors in parentheses. X – omitted due to perfect multicollinearity Dependent variable is a 0-1 variable indicating whether there is a surge episode (either GF-led surge or an M&A-led surge). All models are estimated using complementary logistic regression. The variables GDP per capita and natural resources are windsorized at the 1% level. Covariance across surge episodes is accounted for using seemingly unrelated estimated with clustering of standard errors at the country level. Alternative Definition Column 1: 1 standard deviation from the 5 year average and falling within the top 20th percentile of the entire sample's FDI-to-GDP ratio growth Alternative Definition Column 2: 1.5 standard deviation from the 5 year average and falling within the top 25th percentile of the entire sample's FDI-to-GDP ratio growth Alternative Definition Column 3: 1.5 standard deviations from the 5 year average and falling within the top 20th percentile of the entire sample's FDI-to-GDP ratio growth Alternative Definition Column 4: 2 standard deviations from the 5 year average and falling within the top 25th percentile of the entire sample's FDI-to-GDP ratio growth Alternative Definition Column 5: 2 standard deviations from the 5 year average and falling within the top 20th percentile of the entire sample's FDI-to-GDP ratio growth						

Appendix Table B4: Sensitivity Analysis – M&A-led Stops: Alternative Definitions of Stops

	Baseline Regression	1 SD, Bottom 20% Percentile	1.5 SD, Bottom 25% Percentile	1.5 SD, Bottom 20% Percentile	2 SD, Bottom 25% Percentile	2 SD, Bottom 20% Percentile
Global Factors						
Global Risk	0.046 (.031)	0.049 (.036)	0.019 (.035)	0.019 (.038)	0.080 (.044)	0.076 (.048)
Global Liquidity	0.003 (.006)	0.009 (.007)	0.002 (.007)	0.005 (.007)	0.005 (.008)	0.007 (.009)
Global Growth	-0.235 (.112)*	-0.179 (.121)	-0.260 (.131)*	-0.203 (.140)	0.021 (.134)	0.019 (.153)
Regional Contagion	0.028 (.017)	0.038 (.032)	0.046 (.028)	0.048 (.034)	0.110 (.034)**	0.130 (.035)**
Domestic Factors						
Stop previous year	0.848 (.612)	0.117 (1.14)	X	X	X	X
Surge previous year	3.915 (317)**	4.367 (.328)**	4.004 (.380)**	4.638 (.397)**	4.542 (.411)**	4.834 (.435)**
GDP per Capita (ln)	0.106 (.068)	0.073 (.070)	0.229 (.076)**	0.261 (.085)**	0.248 (.134)	0.197 (.145)
Natural Resources	-0.007 (.009)	-0.001 (.009)	-0.009 (.010)	-0.004 (.011)	0.007 (.014)	0.013 (.014)
Δ Financial Openness	0.708 (.247)**	0.466 (.395)	0.371 (.466)	0.648 (.469)	0.656 (.580)	0.447 (.715)
Δ Economic and Financial Stability	0.026 (.031)	0.467 (.031)	0.016 (.031)	0.053 (.028)	-0.054 (.038)	-0.026 (.046)
Δ Political Stability	0.013 (.041)	-0.016 (.050)	-0.027 (.048)	-0.068 (.059)	0.036 (.070)	0.002 (.079)
Number of Observations	1768	1768	1768	1768	1768	1768
Number of Countries	95	95	95	95	95	95
Number of Stop Years	57	48	41	36	25	23
*p<0.05, **p<0.01; cluster-robust standard errors in parentheses. X – omitted due to perfect multicollinearity Dependent variable is a 0-1 variable indicating whether there is a surge episode (either GF-led surge or an M&A-led surge). All models are estimated using complementary logistic regression. The variables GDP per capita and natural resources are windsorized at the 1% level. Covariance across surge episodes is accounted for using seemingly unrelated estimated with clustering of standard errors at the country level. Alternative Definition Column 1: 1 standard deviation from the 5 year average and falling within the bottom 20th percentile of the entire sample's FDI-to-GDP ratio growth Alternative Definition Column 2: 1.5 standard deviation from the 5 year average and falling within the bottom 25th percentile of the entire sample's FDI-to-GDP ratio growth Alternative Definition Column 3: 1.5 standard deviations from the 5 year average and falling within the bottom 20th percentile of the entire sample's FDI-to-GDP ratio growth Alternative Definition Column 4: 2 standard deviations from the 5 year average and falling within the bottom 25th percentile of the entire sample's FDI-to-GDP ratio growth Alternative Definition Column 5: 2 standard deviations from the 5 year average and falling within the bottom 20th percentile of the entire sample's FDI-to-GDP ratio growth						

Appendix Table B5: Sensitivity Analysis – GF-Led Surges: Alternative Variable Definitions

	Baseline Regression	Global Interest Rate	Resource Rich	Economic Stability	Financial Stability	Absence of Conflict	Institutional Quality	Democracy
Global Factors								
Global Risk	0.010 (.014)	-0.015 (.015)	0.007 (.014)	0.010 (.014)	0.010 (.014)	0.014 (.014)	0.015 (.014)	0.015 (.014)
Global Liquidity	0.013 (.004)**	-0.103 (.055)	0.012 (.004)**	0.013 (.004)**	0.013 (.004)**	0.013 (.004)**	0.013 (.004)**	0.013 (.004)**
Global Growth	0.076 (.058)	0.014 (.061)	0.083 (.060)	0.078 (.059)	0.085 (.057)	0.092 (.057)	0.093 (.058)	0.092 (.056)
Regional Contagion	0.021 (.008)*	0.018 (.009)*	0.022 (.008)**	0.023 (.008)*	0.022 (.008)*	0.020 (.008)*	0.020 (.008)*	0.020 (.008)*
Domestic Factors								
Stop previous year	0.263 (.231)	0.258 (.233)	0.252 (.234)	0.269 (.234)	0.260 (.231)	0.260 (.239)	0.260 (.238)	0.269 (.239)
Surge previous year	-0.014 (.205)	-0.021 (.203)	-0.011 (.204)	-0.021 (.203)	-0.020 (.205)	0.001 (.207)	-0.000 (.208)	0.004 (.207)
GDP per Capita (ln)	-0.148 (.034)**	-0.158 (.034)**	-0.144 (.038)**	-0.148 (.034)**	-0.149 (.034)**	-0.144 (.035)**	-0.144 (.035)**	-0.143 (.034)**
Natural Resources	0.007 (.003)*	0.005 (.003)	0.296 (.130)*	0.007 (.003)*	0.007 (.003)	0.007 (.003)*	0.007 (.003)*	0.007 (.003)*
Δ Financial Openness	0.118 (.165)	0.133 (.168)	0.133 (.162)	0.128 (.164)	0.129 (.163)	0.123 (.163)	0.124 (.162)	0.118 (.163)
Δ Economic and Financial Stability	0.020 (.015)	0.017 (.016)	0.004 (.021)	0.019 (.023)	0.032 (.023)	0.013 (.015)	0.013 (.015)	0.013 (.015)
Δ Political Stability	-0.038 (.020)	-0.040 (.020)	-0.032 (.020)	-0.033 (.020)	-0.036 (.018)*	-0.012 (.068)	-0.020 (.091)	0.070 (.072)
Number of Observations	1768	1768	1768	1768	1768	1768	1768	1768
Number of Countries	95	95	95	95	95	95	95	95
Number of Surge Years	207	207	207	207	207	207	207	207

Appendix Table B6: Sensitivity Analysis – GF-Led Stops: Alternative Variable Definitions

	Baseline Regression	Global Interest Rate	Resource Rich	Economic Stability	Financial Stability	Absence of Conflict	Institutional Quality	Democracy
Global Factors								
Global Risk	0.013 (.013)	0.010 (.013)	0.013 (.013)	0.012 (.013)	0.014 (.013)	0.014 (.014)	0.014 (.013)	0.014 (.013)
Global Liquidity	0.002 (.003)	0.018 (.058)	0.001 (.003)	0.002 (.003)	0.003 (.003)	0.003 (.003)	0.002 (.003)	0.003 (.003)
Global Growth	-0.112 (.053)*	-0.124 (.053)*	-0.119 (.053)*	-0.098 (.056)	-0.119 (.052)*	-0.108 (.052)*	-0.113 (.053)*	-0.108 (.052)*
Regional Contagion	-0.007 (.010)	-0.006 (.009)	-0.008 (.010)	-0.007 (.010)	-0.008 (.010)	-0.006 (.010)	-0.006 (.010)	-0.007 (.010)
Domestic Factors								
Stop previous year	-0.735 (.332)*	-0.735 (.331)*	-0.737 (.331)*	-0.735 (.331)*	-0.745 (.333)*	-0.953 (.318)**	-0.951 (.317)**	-0.952 (.317)**
Surge previous year	1.533 (.153)**	1.531 (.153)**	1.507 (.153)**	1.529 (.154)**	1.541 (.154)**	1.515 (.156)**	1.519 (.157)**	1.520 (.156)**
GDP per Capita (ln)	-0.067 (.036)	-0.066 (.035)	-0.080 (.035)*	-0.067 (.035)	-0.066 (.035)	-0.062 (.035)	-0.062 (.035)	-0.063 (.035)
Natural Resources	0.006 (.003)*	0.006 (.003)*	0.282 (.126)*	0.006 (.003)*	0.006 (.003)*	0.006 (.003)	0.005 (.003)	-0.006 (.003)*
Δ Financial Openness	-0.247 (.195)	-0.253 (.194)	-0.236 (.192)	-0.239 (.196)	-0.265 (.200)	-0.256 (.197)	-0.265 (.199)	-0.252 (.195)
Δ Economic and Financial Stability	-0.011 (.018)	-0.014 (.019)	-0.009 (.016)	-0.036 (.023)	0.014 (.031)	-0.019 (.018)	-0.018 (.019)	-0.020 (.018)
Δ Political Stability	-0.031 (.021)	-0.032 (.020)	-0.031 (.020)	-0.028 (.020)	-0.040 (.019)*	-0.018 (.082)	0.100 (.126)	-0.061 (.099)
Number of Observations	1768	1768	1768	1768	1768	1768	1768	1768
Number of Countries	95	95	95	95	95	95	95	95
Number of Stop Years	225	225	225	225	225	225	225	225

Appendix Table B7: Sensitivity Analysis – M&A-led Surges: Alternative Variable Definitions

	Baseline Regression	Global Interest Rate	Resource Rich	Economic Stability	Financial Stability	Absence of Conflict	Institutional Quality	Democracy
Global Factors								
Global Risk	0.045 (.028)	0.019 (.027)	0.058 (.029)*	0.047 (.029)	0.046 (.028)	0.046 (.028)	0.040 (.027)	0.043 (.027)
Global Liquidity	0.015 (.007)	-0.159 (.111)	0.018 (.007)*	0.016 (.007)*	0.017 (.007)*	0.014 (.007)*	0.012 (.007)	0.014 (.007)*
Global Growth	0.542 (.097)**	0.475 (.103)**	0.550 (.094)**	0.537 (.100)**	0.512 (.096)**	0.548 (.100)**	0.537 (.099)**	0.544 (.097)**
Regional Contagion	0.032 (.015)*	0.037 (.015)*	0.035 (.014)*	0.030 (.015)*	0.033 (.015)*	0.032 (.015)*	0.031 (.015)*	0.032 (.014)*
Domestic Factors								
Stop previous year	0.685 (.501)	0.629 (.485)	0.669 (.505)	0.677 (.503)	0.685 (.501)	0.723 (.499)	0.667 (.512)	0.741 (.515)
Surge previous year	-0.195 (.540)	-0.206 (.553)	-0.221 (.556)	-0.165 (.557)	-0.227 (.547)	-0.152 (.522)	-0.150 (.527)	-0.139 (.514)
GDP per Capita (ln)	0.173 (.068)*	0.167 (.069)*	0.153 (.067)*	0.171 (.067)*	0.169 (.068)*	0.170 (.069)*	0.175 (.068)*	0.167 (.070)*
Natural Resources	-0.036 (.018)*	-0.037 (.017)*	-0.819 (.322)*	-0.036 (.017)*	-0.036 (.018)*	-0.035 (.017)*	-0.035 (.017)*	-0.034 (.017)*
Δ Financial Openness	0.433 (.212)*	0.428 (.178)**	-0.377 (.194)	0.374 (.189)*	0.382 (.183)*	0.405 (.179)*	0.395 (.181)*	0.410 (.179)*
Δ Economic and Financial Stability	-0.068 (.027)*	-0.076 (.029)**	-0.052 (.022)*	-0.084 (.042)*	-0.090 (.051)	-0.069 (.029)*	-0.066 (.029)*	-0.069 (.029)*
Δ Political Stability	0.011 (.042)	0.007 (.043)	0.006 (.046)	0.001 (.044)	0.000 (.044)	0.053 (.130)	0.286 (.241)	-0.023 (.200)
Number of Observations	1768	1768	1768	1768	1768	1768	1768	1768
Number of Countries	95	95	95	95	95	95	95	95
Number of Surge Years	57	57	57	57	57	57	57	57

Appendix Table B8: Sensitivity Analysis – M&A-led Stops: Alternative Variable Definitions

	Baseline Regression	Global Interest Rate	Resource Rich	Economic Stability	Financial Stability	Absence of Conflict	Institutional Quality	Democracy
Global Factors								
Global Risk	0.046 (.031)	0.012 (.029)	0.049 (.031)	0.045 (.031)	0.044 (.031)	0.039 (.030)	0.036 (.030)	0.039 (.031)
Global Liquidity	0.003 (.006)	-0.552 (.136)**	0.003 (.006)	0.003 (.006)	0.003 (.006)	0.002 (.006)	0.001 (.006)	0.002 (.006)
Global Growth	-0.235 (.112)*	-0.231 (.100)*	-0.210 (.106)*	-0.286 (.114)*	-0.212 (.105)*	-0.260 (.108)*	-0.286 (.106)**	-0.259 (.108)*
Regional Contagion	0.028 (.017)	0.018 (.018)	0.028 (.016)	0.029 (.017)	0.025 (.017)	0.026 (.017)	0.024 (.017)	0.026 (.016)
Domestic Factors								
Stop previous year	0.848 (.612)	0.765 (.609)	0.898 (.627)	0.863 (.618)	0.861 (.622)	0.873 (.619)	0.905 (.621)	0.872 (.623)
Surge previous year	3.915 (.317)**	3.940 (.314)**	3.927 (.329)**	3.960 (.318)**	3.905 (.321)**	3.863 (.324)**	3.874 (.327)**	3.861 (.321)**
GDP per Capita (ln)	0.106 (.068)	0.080 (.071)	0.091 (.064)	0.111 (.068)	0.094 (.070)	0.123 (.068)	0.132 (.068)	0.123 (.070)
Natural Resources	-0.007 (.009)	-0.011 (.009)	-0.166 (.293)	-0.006 (.009)	-0.006 (.009)	-0.006 (.009)	-0.007 (.009)	-0.006 (.009)
Δ Financial Openness	0.708 (.247)**	0.822 (.272)**	0.623 (.225)**	0.680 (.249)**	0.700 (.249)**	0.702 (.240)**	0.704 (.236)**	0.701 (.241)**
Δ Economic and Financial Stability	0.026 (.031)	0.046 (.032)	0.023 (.029)	0.101 (.059)	-0.021 (.038)	0.025 (.030)	0.031 (.030)	0.025 (.030)
Δ Political Stability	0.013 (.041)	0.034 (.045)	0.018 (.041)	0.008 (.040)	0.023 (.040)	0.008 (.108)	0.366 (.249)	0.012 (.265)
Number of Observations	1768	1768	1768	1768	1768	1768	1768	1768
Number of Countries	95	95	95	95	95	95	95	95
Number of Stop Years	57	57	57	57	57	57	57	57

Appendix Table B9: Sensitivity Analysis – GF-Led Surges: Additional Control Variables

	Baseline Regression	Region Dummies	Domestic Growth	Exchange Rate	Inflation	Trade Openness	Tariffs	Country Size
Global Factors								
Global Risk	0.010 (.014)	0.011 (.015)	0.010 (.014)	0.009 (.014)	0.012 (.014)	0.002 (.015)	0.001 (.015)	0.010 (.015)
Global Liquidity	0.013 (.004)**	0.013 (.004)**	0.013 (.004)**	0.014 (.004)**	0.013 (.004)**	0.013 (.004)**	0.012 (.004)**	0.013 (.004)**
Global Growth	0.076 (.058)	0.008 (.059)	0.082 (.060)	0.080 (.060)	0.073 (.059)	0.009 (.060)	0.011 (.059)	0.074 (.050)
Regional Contagion	0.021 (.008)*	0.021 (.008)*	0.021 (.008)*	0.021 (.008)*	0.021 (.008)*	0.017 (.009)	0.023 (.009)**	0.021 (.008)**
Domestic Factors								
Stop previous year	0.263 (.231)	0.264 (.229)	0.261 (.232)	0.259 (.237)	0.272 (.232)	0.259 (.248)	0.106 (.262)	0.205 (.236)
Surge previous year	-0.014 (.205)	-0.021 (.207)	-0.008 (.206)	-0.038 (.214)	-0.013 (.205)	-0.057 (.218)	-0.016 (.216)	-0.009 (.206)
GDP per Capita (ln)	-0.148 (.034)**	-0.163 (.048)**	-0.143 (.036)**	-0.145 (.035)**	-0.148 (.034)**	-0.124 (.039)**	-0.174 (.038)**	-0.148 (.044)**
Natural Resources	0.007 (.003)*	0.008 (.004)*	0.007 (.003)*	0.005 (.004)	0.006 (.003)	0.008 (.004)*	0.006 (.004)	0.007 (.004)
Δ Financial Openness	0.118 (.165)	0.118 (.167)	0.124 (.165)	0.090 (.167)	0.118 (.165)	0.186 (.187)	0.246 (.167)	0.114 (.167)
Δ Economic and Financial Stability	0.020 (.015)	0.020 (.014)	0.023 (.014)	0.026 (.015)	0.021 (.015)	0.033 (.143)	0.019 (.015)	0.020 (.016)
Δ Political Stability	-0.038 (.020)	-0.038 (.020)	-0.035 (.020)	-0.042 (.019)*	-0.038 (.020)	-0.061 (.021)*	-0.051 (.022)*	-0.030 (.020)
Domestic Growth			-0.012 (.012)					
Δ Exchange Rate				0.423 (.111)				
Δ Inflation					0.081 (.091)			
Δ Trade Openness						0.025 (.006)**		
Δ Average Tariff							-0.020 (.013)	
Population (ln)								-0.211 (.174)
Number of Observations	1768	1768	1768	1750	1768	1601	1552	1717
Number of Countries	95	95	95	94	95	93	93	93
Number of Surge Years	207	207	207	205	207	186	184	203

Appendix Table B10: Sensitivity Analysis – GF-Led Stops: Additional Control Variables

	Baseline Regression	Region Dummies	Domestic Growth	Exchange Rate	Inflation	Trade Openness	Tariffs	Country Size
Global Factors								
Global Risk	0.013 (.013)	0.012 (.013)	0.013 (.013)	0.012 (.013)	0.013 (.013)	0.016 (.014)	0.023 (.015)	0.012 (.014)
Global Liquidity	0.002 (.003)	0.002 (.003)	0.002 (.003)	0.003 (.003)	0.002 (.003)	0.003 (.003)	0.004 (.003)	0.002 (.003)
Global Growth	-0.112 (.053)*	-0.121 (.053)*	-0.108 (.052)*	-0.126 (.052)*	-0.113 (.053)*	-0.102 (.062)	-0.109 (.062)	-0.124 (.053)*
Regional Contagion	-0.007 (.010)	-0.009 (.010)	-0.007 (.010)	-0.007 (.010)	-0.007 (.010)	-0.006 (.010)	-0.014 (.009)	-0.008 (.010)
Domestic Factors								
Stop previous year	-0.735 (.332)*	-0.727 (.333)*	-0.733 (.332)*	-0.728 (.333)*	-0.734 (.332)*	-0.825 (.324)*	-0.490 (.349)	-0.717 (.332)*
Surge previous year	1.533 (.153)**	1.542 (.156)**	1.541 (.156)**	1.564 (.152)**	1.532 (.153)**	1.553 (.175)**	1.486 (.182)**	1.522 (.152)**
GDP per Capita (ln)	-0.067 (.036)	-0.068 (.044)	-0.062 (.037)	-0.064 (.037)	-0.067 (.035)	-0.040 (.039)	-0.048 (.044)	-0.073 (.041)
Natural Resources	0.006 (.003)*	0.004 (.003)	0.006 (.003)*	0.007 (.003)*	0.006 (.003)*	0.006 (.003)	0.004 (.004)	0.006 (.003)*
Δ Financial Openness	-0.247 (.195)	-0.242 (.205)	-0.238 (.193)	-0.253 (.196)	-0.246 (.196)	-0.296 (.200)	-0.339 (.216)	-0.258 (.198)
Δ Economic and Financial Stability	-0.011 (.018)	-0.012 (.019)	-0.009 (.019)	-0.012 (.019)	-0.011 (.019)	-0.002 (.020)	-0.002 (.020)	-0.008 (.019)
Δ Political Stability	-0.031 (.021)	-0.032 (.021)	-0.029 (.021)	-0.033 (.021)	-0.031 (.021)	-0.030 (.171)	-0.002 (.019)	-0.032 (.021)
Domestic Growth			-0.009 (.015)					
Δ Exchange Rate				-0.097 (.157)				
Δ Inflation					0.047 (.093)			
Δ Trade Openness						-0.013 (.009)		
Δ Average Tariff							0.017 (.024)	
Population (ln)								0.105 (.217)
Number of Observations	1768	1768	1768	1750	1768	1601	1552	1717
Number of Countries	95	95	95	94	95	93	93	93
Number of Surge Years	225	225	225	216	225	191	179	212

Appendix Table B11: Sensitivity Analysis – M&A-led Surges: Additional Control Variables

	Baseline Regression	Region Dummies	Domestic Growth	Exchange Rate	Inflation	Trade Openness	Tariffs	Country Size
Global Factors								
Global Risk	0.045 (.028)	0.048 (.028)	0.043 (.028)	0.048 (.027)	0.045 (.028)	0.043 (.029)	0.039 (.028)	0.045 (.028)
Global Liquidity	0.015 (.007)	0.017 (.008)*	0.015 (.007)*	0.016 (.007)*	0.016 (.007)*	0.016 (.007)*	0.015 (.007)*	0.016 (.007)*
Global Growth	0.542 (.097)**	0.539 (.091)**	0.554 (.098)**	0.424 (.095)**	0.529 (.097)**	0.483 (.098)**	0.511 (.099)**	0.542 (.097)**
Regional Contagion	0.032 (.015)*	0.014 (.017)	0.032 (.015)*	0.028 (.013)*	0.036 (.014)*	0.032 (.014)*	0.030 (.015)*	0.029 (.014)*
Domestic Factors								
Stop previous year	0.685 (.501)	0.523 (.498)	0.688 (.500)	0.592 (.403)	0.695 (.503)	0.743 (.401)	0.755 (.517)	0.632 (.497)
Surge previous year	-0.195 (.540)	-0.231 (.533)	-0.194 (.539)	-0.225 (.549)	-0.186 (.539)	-0.142 (.540)	-0.214 (.537)	-0.278 (.533)
GDP per Capita (ln)	0.173 (.068)*	0.174 (.079)*	0.179 (.070)*	0.186 (.070)**	0.160 (.068)*	0.167 (.070)*	0.197 (.067)**	0.242 (.072)**
Natural Resources	-0.036 (.018)*	-0.036 (.020)	-0.035 (.017)*	-0.036 (.017)*	-0.037 (.018)*	-0.031 (.018)	-0.039 (.021)	-0.036 (.017)*
Δ Financial Openness	0.433 (.212)*	0.339 (.173)*	0.406 (.184)*	0.414 (.190)*	0.428 (.183)*	0.410 (.183)*	0.416 (.188)*	0.387 (.181)*
Δ Economic and Financial Stability	-0.068 (.027)*	-0.064 (.028)*	-0.064 (.026)*	-0.084 (.031)**	-0.064 (.028)*	-0.067 (.028)*	-0.068 (.028)*	-0.071 (.027)**
Δ Political Stability	0.011 (.042)	0.006 (.043)	0.014 (.042)	0.003 (.048)	0.011 (.042)	0.015 (.043)	0.013 (.045)	0.012 (.042)
Domestic Growth			-0.019 (.023)					
Δ Exchange Rate (ln)				-1.421 (.488)*				
Δ Inflation					0.451 (.188)*			
Δ Trade Openness						0.016 (.010)		
Δ Average Tariff							0.044 (.016)*	
Population (ln)								-1.391 (.723)
Number of Observations	1768	1768	1768	1750	1768	1601	1552	1717
Number of Countries	95	95	95	94	95	93	93	93
Number of Surge Years	57	57	57	57	57	55	55	57

Appendix Table B12: Sensitivity Analysis – M&A-led Stops: Additional Control Variables

	Baseline Regression	Region Dummies	Domestic Growth	Exchange Rate	Inflation	Trade Openness	Tariffs	Country Size
Global Factors								
Global Risk	0.046 (.031)	0.052 (.032)	0.046 (.031)	0.045 (.032)	0.046 (.031)	0.019 (.032)	0.035 (.032)	0.045 (.031)
Global Liquidity	0.003 (.006)	0.002 (.006)	0.003 (.006)	0.003 (.006)	0.003 (.006)	-0.006 (.006)	0.002 (.006)	0.003 (.006)
Global Growth	-0.235 (.112)*	-0.265 (.116)*	-0.236 (.112)*	-0.247 (.116)*	-0.238 (.113)*	-0.242 (.136)	-0.264 (.117)*	-0.236 (.113)*
Regional Contagion	0.028 (.017)	0.012 (.019)	0.028 (.017)	0.027 (.016)	0.027 (.016)	0.021 (.016)	0.026 (.017)	0.026 (.017)
Domestic Factors								
Stop previous year	0.848 (.612)	0.789 (.588)	0.849 (.622)	0.763 (.620)	0.841 (.619)	0.975 (.629)	0.834 (.616)	0.813 (.618)
Surge previous year	3.915 (.317)**	3.819 (.313)**	3.915 (.317)**	3.863 (.316)**	3.910 (.318)**	4.059 (.348)**	3.829 (.336)**	3.867 (.323)**
GDP per Capita (ln)	0.106 (.068)	0.069 (.063)	0.106 (.069)	0.109 (.071)	0.107 (.068)	0.093 (.069)	0.099 (.072)	0.130 (.073)
Natural Resources	-0.007 (.009)	-0.009 (.009)	-0.007 (.009)	-0.009 (.009)	-0.007 (.009)	-0.014 (.011)	-0.012 (.012)	-0.006 (.009)
Δ Financial Openness	0.708 (.247)**	0.734 (.262)**	0.709 (.246)**	0.785 (.262)**	0.711 (.248)**	0.744 (.237)**	0.719 (.259)**	0.698 (.248)**
Δ Economic and Financial Stability	0.026 (.031)	0.032 (.030)	0.025 (.0331)	0.006 (.036)	0.027 (.031)	0.016 (.035)	0.022 (.033)	0.027 (.032)
Δ Political Stability	0.013 (.041)	-0.007 (.042)	0.013 (.041)	0.012 (.044)	0.013 (.041)	0.004 (.032)	0.018 (.045)	0.016 (.043)
Domestic Growth			0.002 (.036)					
Δ Exchange Rate				-2.310 (1.02)*				
Δ Inflation					0.175 (.069)			
Δ Trade Openness						-0.041 (.015)*		
Δ Average Tariff							0.020 (.030)	
Population (ln)								0.046 (.943)
Number of Observations	1768	1768	1768	1750	1768	1601	1552	1717
Number of Countries	95	95	95	94	95	93	93	93
Number of Surge Years	57	57	57	56	57	52	54	56