DIVERSIFICATION STRATEGIES AND EQUITY MARKET VOLATILITIES: IMPLICATIONS FOR INVESTORS AND MNEs

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ABSTRACT

This paper investigates the linkages among Foreign Direct Investment (FDI-greenfield and M&A) decisions and equity market returns and volatilities. The main hypothesis is that FDI decisions by Multinational Enterprises (MNE) are influenced by risk and uncertainty indicated by equity market returns and volatilities in the destination (host) countries. Surveys and structured interviews were conducted with senior managers of MNEs based in the USA to collect data from various industries. Capital market performances (returns and volatilities) were found to influence the country choice for FDI as well as its timing. Implications for risk management and economic policy are discussed as well as FDI decisions by MNEs.

INTRODUCTION

Since the 1980s, more and more money has flown across national borders in the form of both foreign direct (FDI) and portfolio (PI) investments while global capital markets have become increasingly integrated. Such free capital movements are helpful to investors interested in diversifying their portfolios and increasing their returns by having access to faster growing markets. While foreign companies that undertake direct investments (buying of factories, building infrastructure) help alleviate lack of domestic savings and investment to speed up GDP growth; portfolio investments (buying bonds or stocks) tend to be volatile. Also, if there

are differences in returns and volatilities in equity markets there may be implications for MNEs that diversify their supply chains, exports/imports and investments. In this connection, the present paper attempts to address managerial issues in Multinational Enterprises (MNE) such as: What are the implications of volatility linkages for MNE at the corporate level? What can international companies learn from the findings of the research on market returns and volatility. Should the companies investing from the US to the sample countries benefit more from internationalizating over the period under study?

Foreign Direct Investment (FDI) flows record the value of cross-border transactions related to direct investment during a given period of time, usually a quarter or a year. Financial flows consist of equity transactions, reinvestment of earnings, and intercompany debt transactions. Outward flows represent transactions that increase the investment that investors in the home country have in enterprises in a foreign country.

LITERATURE REVIEW

Volatile financial markets are a sign of widespread uncertainty about both the near and distant future. As a result, firms tend to reduce their investment spending (Chen and Funke, 2003) and become cautious to hire new workers. Similarly, countries experiencing high volatility attract less foreign investment (Erdal and Tatoglu, 2002). Li & Rugman (2007) extend applications of real options theory to foreign direct investment (FDI) research regarding choice of location and choice of market entry mode under uncertainty and find that from building a subsidiary in a nonhome (FDI) region could be more beneficial than in a home region. When uncertainty is high and endogenous, MNEs may prefer high-commitment entry modes (such as FDI) because they contribute to the reduction of uncertainty and provide valuable growth options. Arcabic, Globan & Raguz (2017) found that events on capital markets which send signals regarding domestic investment climate influence foreign investors. De Santis & Ehling (2007) confirm that equity markets affect the FDI flows by producing signals that are important for MNE

investment decisions. Adam & Tveneboah (2008) found a positive and significant relationship between FDI and equity market returns in Ghana. Oyama (1997) in his empirical study of Venezuela, Jordan and Pakistan confirms the interdependence of movement in the equity markets and FDI flows. The argument is that when stock indices grow significantly (higher returns) and periods of low volatility, investors are more inclined to make riskier investment decisions. Nonnember and De Mendonca (2004) argue that the euphoria in the capital markets in the developed world is a powerful determinant of FDI outflows from these countries. The existence of linkages between capital markets and FDI was also confirmed by Batten and Vo (2009) and Chousa, Tamazian & Vadlamannati (2008). Though, Baker, Foley and Wurgler (2009) find that while FDI is strongly positively correlated with movements on the source country's equity markets, they are negatively connected with the movements on the host coutry's equity markets. Similarly, Feridun, Shawhey and Jalil (2009) find a positive causal relationship from equity prices to FDI but the reverse does not hold.

There are reasons to expect differences in transmission of returns and volatilities between different time periods such as before and after financial shocks. One is the “herding” behavior and the other is “hunkering down” after financial shocks (Yavas and Dedi, 2016). Contrary to the effect of financial linkages during volatile markets, during periods of consistent market conditions, increased financial linkages offer multiple alternatives for capital to be allocated to areas where it would be most productive for the increase of both returns to the holder and to increase the output for recipients. Thus, one can argue both the decision of “where” to invest (location) and “how” to invest (mode of entry) are affected by the equity markets’ performance. Many of the world’s leading companies have operations scattered around the globe. The Economist surveyed 500 executives of MNEs and found that volatilities and uncertainties resulting from market volatilities are an important threat to their global supply chains (EIU, 2009). Lee and Makhija (2009) found that operating flexibility of global supply chain

network is more valuable during a period of global financial crisis. This is because operating in many locations tends to lower risk due to diversification. Similarly, supply chain research indicated that the global supply chain network can help mitigate the impact of exchange rate volatility (Kogut and Kulatilaka, 1994; Tong and Ruer, 2007). During financial crisis markets become more volatile. However, it is not clear how firms making FDI decisions area affected by the crisis. If we examine FDI activity before and after the 2007-2008 financial crisis, we can observe the decreased FDI flows to the countries represented in the table below. In fact, overall FDI activity declined after the financial crisis and has not yet fully recovered. The table is representative of Canada, Mexico and Brazil in the Americas included in the study. We also covered UK, Italy, Scotland, Finland, Belgium, Ireland, Netherlands, Luxemburg, Germany, Romania, Switzerland in Europe and China, India and Israel in Asia.

Table 1. *FDI Flows Outward, in Million USD, 2005-2017 (source: https://data.oecd.org/chart/5n1B)*

Location	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Brazil	2,517	28,202	7,067	20,457	-10,084	22,060	11,062	-5,301	-1,180	2,230	3,092	-7,433	-1,351
Canada	27,540	46,215	64,621	79,236	39,660	34,721	52,144	55,875	57,364	60,273	67,862	73,557	79,072
China (People's Republic of China)	13,731	23,932	17,155	56,742	43,890	57,954	48,421	64,963	72,971	123,130	174,391	216,424	101,914
Germany	74,498	116,745	169,351	71,370	68,548	125,453	78,002	62,188	39,492	91,720	97,719	46,790	77,483
Ireland	14,304	15,332	21,150	18,912	26,617	22,350	-1,166	22,573	29,360	41,440	168,359	30,055	-39,104
Israel	2,946	15,438	8,605	7,210	1,751	7,944	7,401	2,276	3,858	4,526	10,969	14,579	6,153
Luxembourg	9,034	7,183	73,363	11,737	6,709	20,842	9,052	2,771	24,317	34,357	17,310	30,142	44,472
Mexico	6,469	5,784	9,706	438	9,861	14,372	13,273	22,897	14,730	5,403	10,668	1,604	2,492
Netherlands	105,999	72,534	55,691	68,345	26,267	68,363	34,818	6,174	69,692	59,360	246,265	187,962	27,317
OECD - Total	710,130	1,136,372	1,874,479	1,389,171	877,689	1,012,477	1,217,990	920,364	986,957	840,485	1,286,135	1,135,601	1,028,848
World	834,394	1,363,449	2,154,190	1,701,069	1,096,623	1,374,407	1,539,133	1,256,600	1,348,643	1,331,029	1,691,804	1,545,512	1,381,228

The key message: Global Foreign Direct Investment slipped further 2017.

- Global foreign direct investment (FDI) fell by 16% in 2017, to an estimated US$1.52 trillion, from a revised US$1.81 trillion in 2016
- A slump in FDI flows to developed countries (-27%) was the principal factor behind the global decline.
- FDI to developing economies remained stable, at an estimated US$653 billion, 2% more than the previous year.

DATA AND METHODOLOGY

The instrument used to collect sample information was a written survey and structured interviews. The survey was sent to 15 individuals who had senior leadership roles with responsibilities related to FDI and M&A. The sample group had experience in multiple

industries. In total, eleven (11) responses were submitted, with responses complete on nine (9) while two (2) survey responses were only partially complete.

Participant characteristics: Table 2 below details study participants in terms of a) their managerial levels (titles), b) industries represented and c) the length of their tenure.

Table 2: Participant Characteristics:

Participant	MNE Role	Industry	Tenure
Participant 1 *	Director	Healthcare	10-20 years
Participant 2*	VP	Insurance	10-20 years
Participant 3	Director	Banking	10-20 years
Participant 4	GM	Retail/CPG	20+ years
Participant 5	Director-Integration Ops	Fin Services	20+ years
Participant 6	Partner	M&A Services	1-5 years
Participant 7	VP	Tech Global	20+ years
Participant 8*	President	Manufacturing	20+ years
Participant 9*	VP	Banking	10-20 years
Participant 10*	VP	Tech Global	10-20 years
Participant 11	SVP	HC Pharma	20+ years

**Denotes participant interview followed survey response*

FINDINGS AND CONCLUSIONS

Surveys and interview participants provided information to determine the behavior of MNE investment strategies. The first two questions inquired if the companies tracked equity markets and their volatilities before and after financial crises. 9 of 11 multinationals provided feedback that they constantly track equity markets and volatilities before, during, and after financial crises. All of the firms track the market following unstable market activity particularly if related to their financials. All of the firms track financial market trends as part of their M&A diligence process (Question # 3) and 9 of 11 referenced software processes and tools used in the due diligence process in relation to the financial assessments, decision-making process and building the financial business case for M&A related activity. The responses to question of whether they undertake more or less FDI (Question # 4) during volatile periods were varied: 8 out of 11

indicated that they make less investment but 3 out of 11 said they make more investment. It is interesting to note that executives from healthcare and technology sectors were the ones to increase investments while executives from finance, banking, insurance and manufacturing invest less during periods of volatility. Both executives from healthcare industry reported that they make more investment especially if the timing and market opportunity are favorable. Tech executives responded that the amount of investment is the same though they may invest more if the multiples play in their favor. Financials, Banking and Insurance invest less as does Manufacturing. M&A consulting services observed that most of their clients make less investment during periods of volatility though some do chase the opportunity when it is apparent. We note that while all participants in the survey monitor equity market conditions in the target countries, their reaction to such conditions were different: some prefering to hunker down and wait before taking risky investment decisions, others see an opportunity in volatility to increase FDI (M&A) activity. Such an outcome may indicate differences in MNEs in terms of risk taking when undertaking outbound foreign direct investment (OFDI). It is important to understand which firm-specific forces importantly affect these firms' risk-taking behaviors. For example, Luo and Bu (2018) find that Chinese MNEs with greater levels of "strategic asset-seeking intent, financial abundance, and inward internationalization present significantly higher risk-taking propensity and risk-taking acts, including risky entry modes such as acquisitions and aggressive geographic dispersion". On the other hand, Akbank, one of the largest Turkish banks, has taken many years and painstaking analyses to expand to neigboring countries (Crossan & Apaydin, 2008).

Market volatility requires MNE management to determine whether to spend or save cash reserves. The leadership must weigh the benefit of investing in new growth initiatives or hold cash. This depends on the strength of the organization leadership and monitoring market opportunities heading into the volatile period. Timing is critical, as well, as market volatility

may be an opportunity to take market share and be positioned well coming out of volatility if the firm can find the bottom of the market or a similar advantageous bargaining position. 5 of 11 interviewed acknowledged their MNEs have a choice to hold onto cash or use it to purchase at price advantage points during crisis. Having access to cash is critical to the timing and movement to take advantage of M&A opportunity. All of the interviewed executives agreed that stock market volatility affects corporate strategy as does the amount of cash holdings of the company. These two factors represents a firm's rating and the ability to sustain the company under threatening market conditions. When determining an investment as a part of the corporate strategy investment diversifiation in global markets is still secondary to product and services portfolio strategies.

We close with executive remarks regarding how equity market volatility affects corporate strategy: All of the interviewed leaders agreed that stock market volatility affects corporate strategy as does the amount of cash holdings of the company. These two factors represents a firm's rating and the ability to sustain the company under threatening market conditions. When determining an investment as a part of the corporate strategy investment diversifiation in global markets is still secondary to product and services portfolio strategies.

In conclusion, the findings tend to support the earlier research in this field: that there exists linkages between capital markets and FDI. Furthermore, FDI flows are negatively connected with the host countries' equity market volatilities.

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