



The Effect of Exchange Rate Volatility on FDI

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Introduction

- + Foreign Direct Investment has become an increasingly important form of global business pursued by many multinational enterprises.
- + This growth of Foreign Direct Investment has become a driving force of economic development in many growing countries through the benefits of technology transfer and increased productivity.
- + For the investing firm Foreign Direct Investment allows for more efficient allocation of resources.
- + As a result exchange rates can affect expected future profits of these multinational firms through uncertainty, which can have an adverse effect on Foreign Direct Investment decisions.
- + Through my analysis I expect to see a positive correlation between host country depreciation and Foreign Direct Investment.

Literature Review

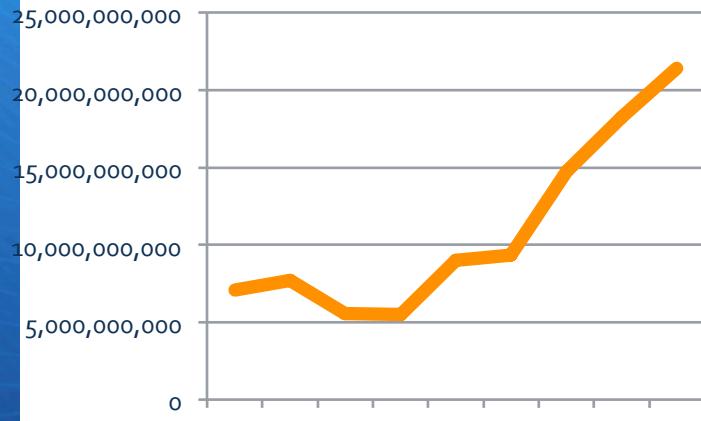
- + Schmidt, Christian W., Broll, Udo. (2009) The Effect of Exchange Rate Risk on U.S. Foreign Direct Investment: An Empirical Analysis. *Dresden Discussion Paper in Economics No. 09/08.*
- + Goldberg, Linda S. (2006). Exchange Rates and Foreign Direct Investment. *Princeton Encyclopedia of the World Economy.*

Data

- + Gathered Data for 7 countries in East and Southeast Asia including: China, Hong Kong, Japan, Korea, Singapore, Taiwan and Thailand.
- + Foreign Direct Investment from the U.S. on a historical cost basis. From the Bureau of Economic Analysis. Specifically FDI in Manufacturing Sector.
- + Monthly Average Exchange rates gathered from X-rates.com.
 - + Volatility and yearly averages calculated from 12 month data for years 2000-2008.

Data Analysis (China)

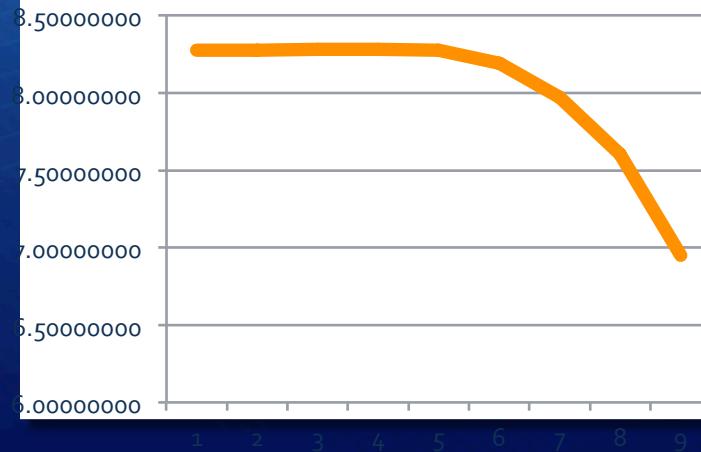
China FDI



China XV



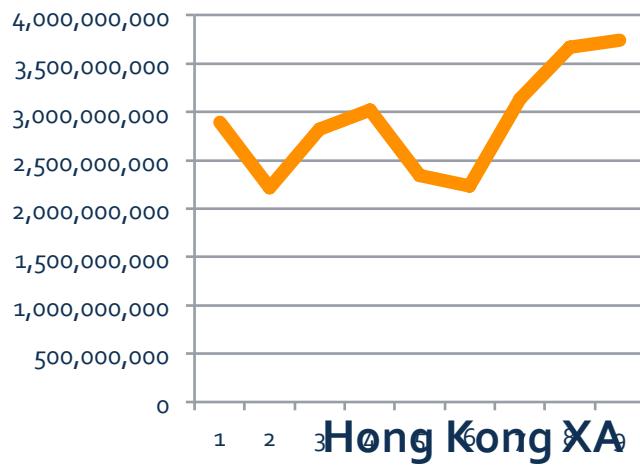
China XA



China XA

Data Analysis (Hong Kong)

Hong Kong FDI



Hong Kong XV



Hong Kong XA



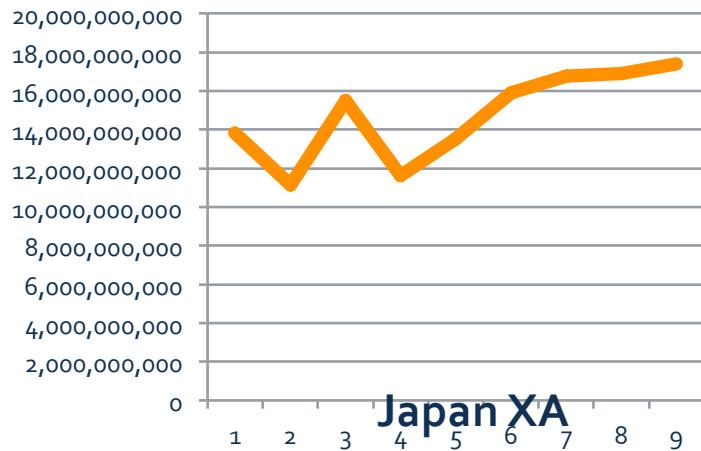
— Hong Kong FDI

— Hong Kong XV

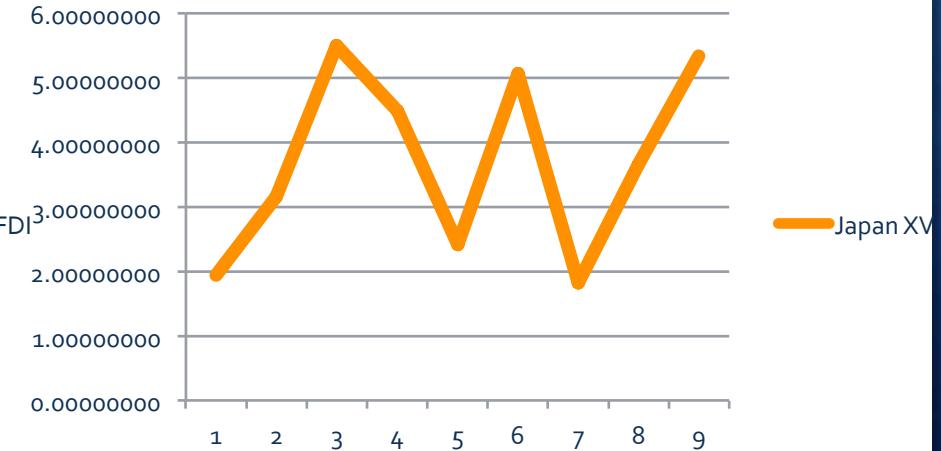
— Hong Kong XA

Data Analysis (Japan)

Japan FDI



Japan XV



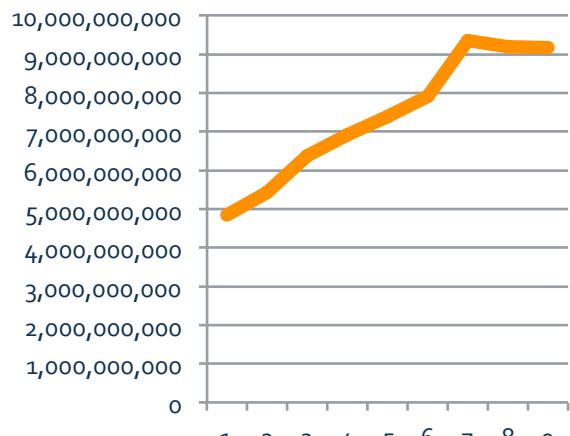
Japan XA



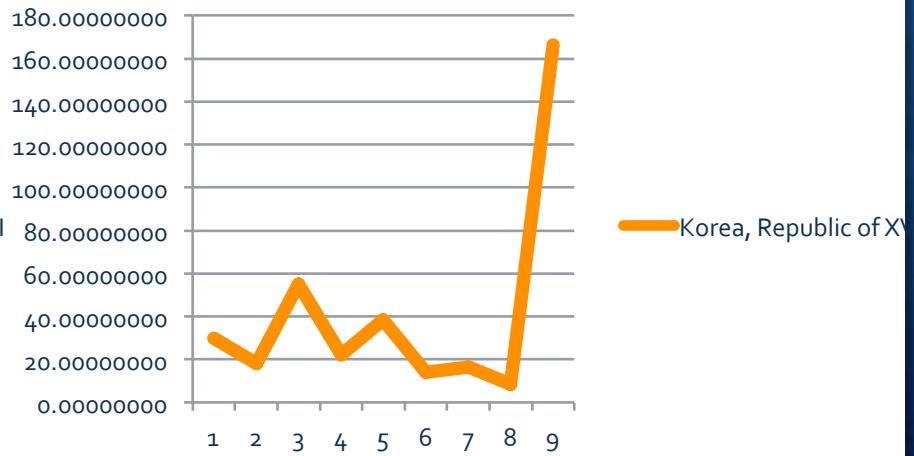
Japan XA

Data Analysis (Republic of Korea)

Korea, Republic of FDI



Korea, Republic of XV



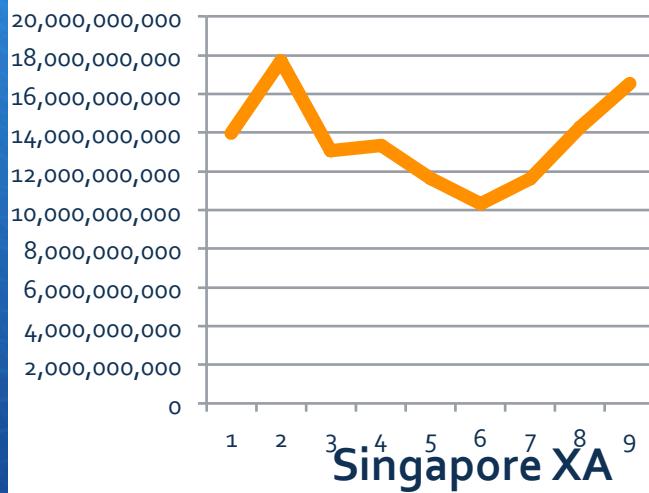
Korea, Republic of XA



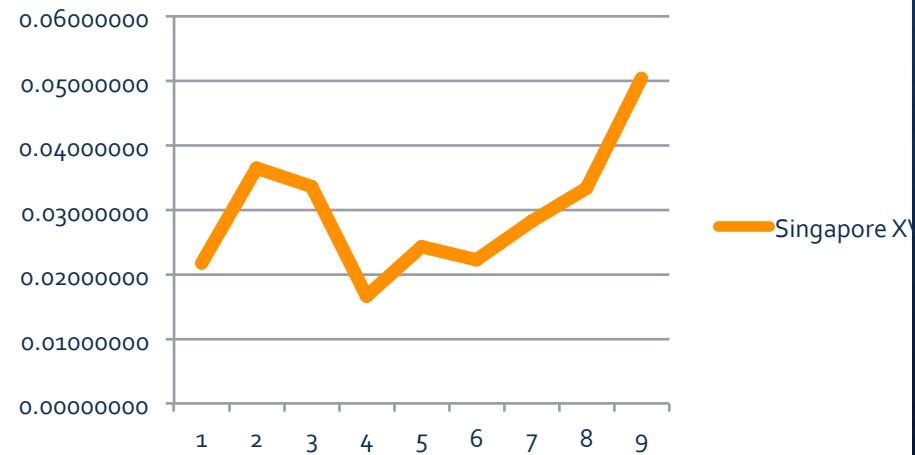
Korea, Republic of XA

Data Analysis (Singapore)

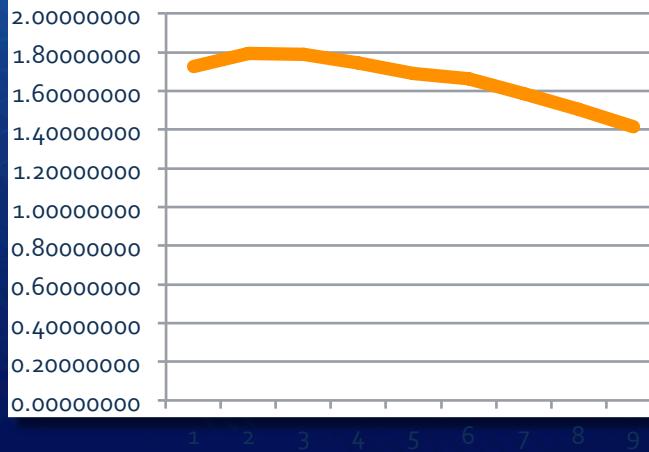
Singapore FDI



Singapore XV



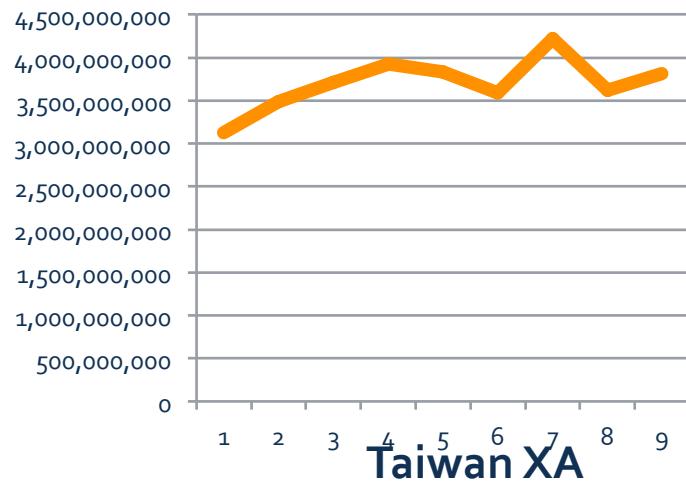
Singapore XA



Singapore XA

Data Analysis (Taiwan)

Taiwan FDI



Taiwan XV



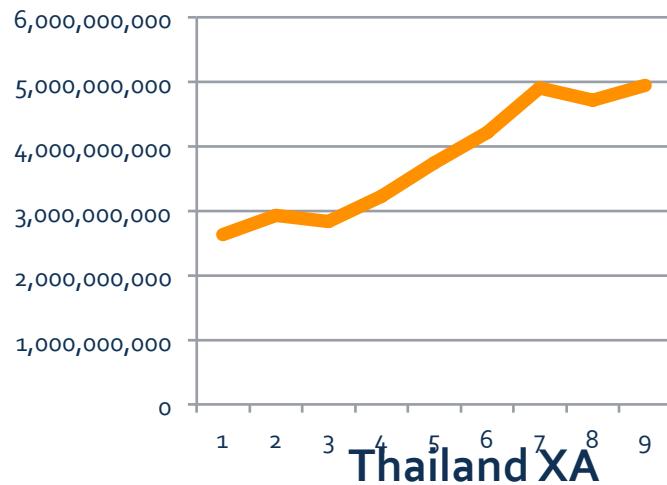
Taiwan XA



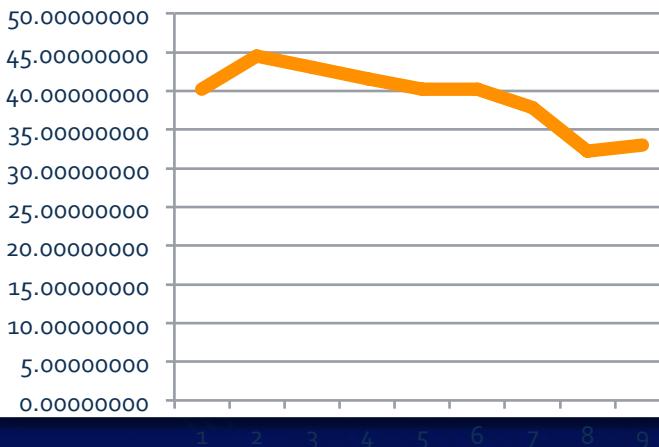
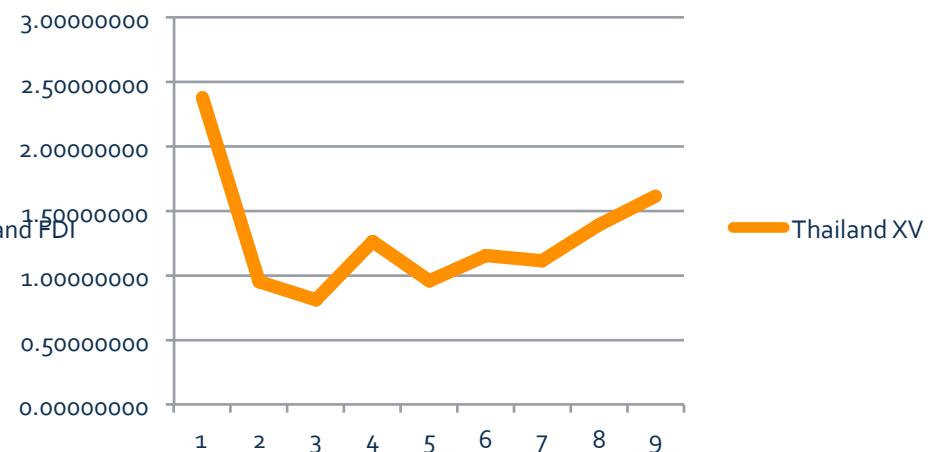
Taiwan XA

Data Analysis (Thailand)

Thailand FDI



Thailand XV



— Thailand XA

Technical Analysis

+ Conceptual Framework

- + $\text{LogFDI} = \beta_0 + \beta_1 \text{AR}(1) + \beta_2 \text{XV} + \beta_3 \text{XA}$
- + $\text{AR}(1)$ = Autoregressive, Lag 1
- + XV = Exchange Rate Volatility
- + XA = Average Yearly Exchange Rate

Techinical Analysis Regression Output

Model Parameter	Estimate	Prob>T:	R-Squared
Intercept	24.68921	0.0004	0.852
Autoregressive, Lag 1	-0.47316	0.2908	
China XV	6.5442	0.052	
China XA	-0.25355	0.4979	
Intercept	-2.68832	0.9785	0.304
Autoregressive, Lag 1	0.10575	0.9076	
Hong Kong XV	12.91186	0.3909	
Hong Kong XA	3.11994	0.8074	
Intercept	23.83321	<0.0001	0.163
Autoregressive, Lag 1	0.21688	0.6544	
Japan XV	0.02709	0.5612	
Japan XA	-0.00466	0.6519	
Intercept	21.82542	<0.0001	0.517
Autoregressive, Lag 1	-0.25928	0.6595	
Singapore XV	17.03023	0.0803	
Singapore XA	0.5955	0.2738	
Intercept	22.42156	<0.0001	0.221
Autoregressive, Lag 1	-0.82455	0.0294	
Taiwan XV	-0.24667	0.037	
Taiwan XA	-0.00699	0.7001	
Intercept	23.05245	<0.0001	0.634
Autoregressive, Lag 1	0.91745	0.0137	
Korea, Republic of XV	0.0005471	0.6739	
Korea, Republic of XA	0.0004071	0.576	
Intercept	23.06854	<0.0001	0.768
Autoregressive, Lag 1	0.80075	0.1226	
Thailand XV	-0.12591	0.2837	
Thailand XA	0.01892	0.4709	

Technical Analysis Highlighted

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Conclusion

- + According to the data from the graphs it seems that the majority of the countries have an positive correlation for Foreign Direct Investment when there is an appreciation of the host currency and higher volatility.
- + This result goes against interest rate parity conditions.
- + But, according to the regression results, the majority of the exchange rate volatility and average exchange rate parameter estimates do not pass the 95% confidence interval.
- + As a result these estimates do not clearly show that an appreciation in the host country exchange rate and higher volatility would increase Foreign Direct Investment.

Questions and Comments

