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1-1-2013

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### Published In

Kiyamaz, Halil, "Cross-Border Mergers and Acquisitions and Country Risk Ratings: Evidence from U.S. Financials" (2013). *Faculty Publications*. 87.

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# CROSS-BORDER MERGERS AND ACQUISITIONS AND COUNTRY RISK RATINGS: EVIDENCE FROM U.S. FINANCIALS

Halil Kiyamaz, Rollins College

## ABSTRACT

This study reports how country risk and macroeconomic conditions influence the wealth gains of U.S. financial firms involved in international mergers and takeovers. The findings suggest that U.S. financials experience weakly significant wealth gains around announcement date. The wealth gains are significant for takeovers in Latin America. There are also differences in wealth gains of subsector affiliations of financial firms. While banks experiencing wealth loss, both insurance and investment services firms having significant wealth gains. The country risk, including economic, political, and financial risk ratings, help to explain the wealth gains to financial bidders.

**JEL :** G14, G15, G20, G34

**KEYWORDS:** Financial Takeovers, Country Risk, Wealth Effects

## INTRODUCTION

International mergers and takeovers continue to get attention of both academicians and practitioners. The financial services industry also has experienced an extensive period of reorganization and consolidation with increased trend toward cross-border takeovers. The motivations for these include existence of economic reasons for restructuring, an increase in the general economic integration and volume of trade across national borders, changes in laws, and presence of an easy financing environment. The international involvements of firms both provide new opportunities for the firms and expose them variety of risks, including economic, political, and financial risks, among others. The argument for in favor of cross-border takeovers includes firm's ability to realize benefits that can't be obtained cross-country portfolio diversification. Therefore, cross-border takeovers may add value to shareholders wealth.

Majority of the studies report positive wealth gains for U.S. firms in international takeovers (Cakici, Hessel, and Tandon, 1996; Kiyamaz and Mukherjee, 2000; Kiyamaz, 2005). There are also studies reporting negative wealth gains to U.S. acquiring firms. For example, Moeller and Schlingemann (2005) find that firms involving cross-border takeovers experience lower wealth gains than domestic takeovers. Doukas and Kan (2006) report that foreign involvement decreases shareholder value while increasing bondholder value.

This study researches the impact of country risk (political, economic, and financial risks) on the stock price reactions of US financial firms announcing foreign takeovers. The study first examines the wealth effects that result from takeover announcements for US financials involved in cross-border takeovers during the period of 1989-2003. It then explores the impact of geographical location of target and the industry affiliation of bidder on wealth gains. The study further examines the determinants of wealth gains to U.S. bidder by analyzing country risk and macroeconomic factors while controlling for other variables.

Overall, findings show the stock prices of U.S. financials increase slightly following takeover announcements. These results are contrary to those of domestic studies of financial mergers that report declining stock prices following takeovers announcements. The extent of stock price change also varies depending on location of target and sub-sector of financial bidders.

Cross-sectional regression results show that country risk play a role in explaining the stock price reaction. The wealth gains (increase in stock prices) relate positively with economic risk rating and inversely with financial and political risk rating. This implies that takeovers in more stable economic environment lead higher wealth gains to U.S. financials. On the other hand, the inverse relation between wealth gains and financial and political risk ratings suggest that takeover in countries with lower financial and political risk rating (higher risk) result in higher wealth gains to bidders. This may be a result of bidding firms negotiating a better deal as less favorable financial or political conditions present opportunity for U.S. bidders to pay lower premiums to target. Further, there would not be many firms willing to invest in a country with declining financial prospect. Macroeconomic control variables also support these findings. For example, wealth gains relate negatively to foreign economic condition variable which measures the relative economic outlook of a local economy.

## LITERATURE REVIEW

The question of whether stockholders reward firms that increase their foreign involvement continues to be a focus of attention in finance literature. The empirical evidence is inconclusive and unable to show that firm's multinational presence increases its value. Studies of domestic takeovers report wealth loss to acquiring institutions. For example, Houston and Ryngaert (1994) show that while bidders suffer a loss, targets experience wealth gains. Madura and Wiant (1994) find that bidders suffer an abnormal negative return, which may be a result of the high offer price. Frames and Lastrapes (1998) report that bidders, on average, experience negative abnormal returns and target firms experience positive abnormal returns. In general, existing studies on domestic mergers of financial institutions report statistically significant wealth gains (9% on average) to targets and wealth loss (-3 % on average) to bidders.

Among studies researching the wealth gains of financial institutions in an international setting, Waheed and Mathur (1995) find that U.S. banks experience significant wealth changes when announcing to engage in foreign expansion, more notable in expansion into developing countries. Cybo-Ottone and Murgia (2000) document that returns to both the targets and bidders to European financials are positive, a result that is contrary to the wealth effects' results found for U.S. bank mergers. Kiyamaz (2005) examines U.S. bidders and targets involved in cross-border mergers of financial institutions and report differences in wealth gains with industry classification and to the regional location of foreign targets and bidders.

Apart from the changes in stock prices because of takeover announcement, international involvements of firms also expose them to variety of risks. The total risks acquiring firms face include economic, political, and financial risks. Knowing how these risks impact wealth gains would help acquiring firms to find out premiums offered to their targets. While various sources of risk measures available (that is Economist Intelligence Unit and Euromoney), this study uses the risk measures of International Country Risk Guide (ICRG). ICRG reports five financial, twelve political, and five economic risk factors for each country. While some of these risks can be managed individually through insurance, hedging and other types of financial planning, many of them cannot be controlled with such instruments. Some of these risks needs to be taken into account in firm's expected return from its investments and hence it can require higher return from countries with riskier outlook. There are numerous studies looking at the risk factors and overseas investment of multinationals. These studies tend to use accounting measures of returns over certain time period. Among them, Click (2005) examines the risk of US direct foreign investment by suing the return on investment as a measure of return on capital. Erb, Campbell, and Viskanta (1996) suggest that country risk measures are correlated with the future equity returns and valuation measures. Diamonte, Liew, and Stevens (1996) show that changes in political risk have bigger impact on emerging market returns. Habib and Zurawicki (2002) report that the differences in corruption level of home and host country play an important role on foreign direct investment. This paper contributes to the literature by examining the wealth gains from cross-border acquisitions of U.S. financials and impact of country risk factors in explaining these gains.

## DATA AND METHODOLOGY

### Sample Selection and Characteristics

Panel A of Table 1 outlines the sample selection. The initial sample includes the financial acquisitions by U.S. firms reported in various *Merger and Acquisitions Journal* issues during the period of 1989-2003. We apply the following screening criteria: First, we limit sample to firms with stock price data available on the CRSP database. Second, the announcement date must be obtainable in *The Wall Street Journal*. Third, there must be no contaminating corporate announcements within five business days before and after the event day. The final usable sample consists of 250 foreign acquisitions by U.S. financial bidders.

Table 1: Sample Selection and Characteristics

<b>Panel A: Sample selection</b>		
M&As initial sample Less: No news Less: No data on CRSP Less: Missing data on CRSP Net sample	<b>U.S. bidders</b>	
<b>Panel B: Frequency of sample by region</b>		
<b>Regions</b>	<b># of takeovers</b>	<b>% of takeovers</b>
Europe	138	55%
Asia/Pacific	31	12%
North America	35	14%
Latin America	35	14%
Others	11	5%
Total	250	100%
<b>Panel C: Frequency of sample by subsector classification</b>		
<b>Subsector classification</b>	<b># of takeovers</b>	<b>% of takeovers</b>
SIC60-61 Depository/Non-Depository Institutions	63	25%
SIC62 Security/Commodity Broker/Dealers	38	15%
SIC63-64 Insurance	106	42%
SIC67 Investment and Financial Services	43	18%
Total	250	100%

*This table shows sample characteristics.*

Panel B of Table 1 reports the distribution of the sample by location of foreign target. Europe ranks first with 138 (55%) takeovers followed by 35 (14%) takeovers in North America and Latin America each. Panels C of Table 1 outlines the sample distribution based on industry classification. The most frequent U.S. financial acquisitions (106) occurred in the insurance (SIC63-64) followed by depository/non-depository institutions (SIC60-61) with (63) takeovers. Investment and financial services (SIC67) is in third place with (43) takeovers followed by security/commodity brokers/dealers with (38) takeovers.

The stock price data is obtained from the CRSP daily return database. The data on macroeconomic variables are from the *International Financial Statistics (IFS)*. The financial statements of firms are gathered from *Compustat*. Country risk ratings are from *International Country Risk Guide (ICRG)*.

### Methodology

Standard event study method is used to measure the impact of takeover announcements on acquiring firms' stock prices. The following single-market model is employed in parameter estimation:

$$R_{i,t} = \alpha_i + \beta_{i,D} \cdot R_{D,t} + \varepsilon_{i,t} \quad (1)$$

Where:

$R_{i,t}$	=	the rate of return on security i on day t,
$R_{D,t}$	=	the rate of return on the market value weighted CRSP Index,
$\beta_{i,D}$	=	the slope of the regression line of the firm i's returns against the returns on the market value CRSP Index,
$\alpha_i$	=	the intercept term,
$\varepsilon_{i,t}$	=	the residuals.

An abnormal return (wealth effect) for common stock of firm i on day t is defined as:

$$AR_{i,t} = R_{i,t} - \hat{R}_{i,t} \quad (2)$$

Where,

$$\hat{R}_{i,t} = \hat{\alpha}_i + \hat{\beta}_{i,D} \cdot R_{D,t} \quad (3)$$

in which  $\alpha_i$ , and  $\beta_{i,D}$ , are estimated market model parameters obtained by using the pre-estimation period ( $t = -316$  to  $t = -61$ ). The expected value of abnormal returns and average abnormal returns is zero in the absence of abnormal performance. We use Brown and Warner (1985) for the test of significance.

### Determinants of Wealth Effects

A number of studies have also examined the factors influencing wealth gains in the context of international mergers (e.g., Harris and Ravenscraft, 1991; Markides and Ittner, 1994; Cakici, Hessel, and Tandon, 1996; and Kiyamaz and Mukherjee, 2000; Kiyamaz, 2005, 2009). The factors cited as indication of higher wealth gains to participants include relatively stronger currency, previous corporate involvement in the foreign country, and a lower GNP growth correlation of the countries involved, among others.

This study focuses on country risk ratings (political, financial, and economic), macroeconomic variables (economic conditions and exchange rates), and geographical and industry affiliation variables to explain the wealth gains to U.S. financial bidders.

### Country Risk Rating

The International Country Risk Guide (ICRG) rating includes 22 variables in three subcategories of political, financial and economic risk ratings. ICRG collects political information and financial and economic data, converting these into risk points for each individual risk component from a consistent pattern of evaluation. While the political risk assessments are made based on subjective analysis of available information, the economic and financial risk assessments use objective data. The political risk ratings include government stability, socioeconomic conditions, investment profile, internal conflict, external conflict, corruption, military in politics, religious tensions, law and order, ethnic tensions, democratic accountability, and bureaucratic quality. The economic risk ratings consider GDP per capita, real GDP growth, annual inflation, budget balance, and current account as a percentage of GDP. Finally, financial risk ratings consider foreign debt as percentage of GDP, foreign debt service as percentage of exports of goods and services, current account as a percentage of export, net international liquidity, and exchange rate stability. The political risk assessment is based on subjective staff analysis of available information. Economic risk factors are based on objective analysis of quantitative data, and financial risk

scores are based on analysis of a mix of quantitative and qualitative information.

### Geographic Variables

Various studies (Doukas and Lang, 2003 and Hughes and Mester, 1998) suggest that geographically diversified firms improve the risk-return trade-off. Berger, DeYoung, Genay, and Udell (2000) also argue that cross-border consolidations are likely to improve the risk-expected return trade-off of bidder and target. Kiyamaz (2004) also reports that U.S. acquisitions in Latin American countries experience higher wealth gains.

To explore the impact of geographical diversification on wealth gains of U.S. bidders, we use a set of dummy variables, representing target firm's geographical location. EUROPE is a dummy variable that is equal to one if target firm is in Europe, and zero otherwise. We construct ASIA/PACIFIC, N. AMERICA, LATIN AMERICA and OTHERS variables similarly.

### Subsector Classification Variables

To find out the impact of sub-industry affiliation on wealth gains, we further develop a set of dummy variables representing various industry groups in the sample. Differing levels of efficiency and expertise in each industry and divergent capacities to exploit opportunities may help explain wealth effects. For example, Doukas and Travlos (1988) report that wealth gains are greater when firms diversify across industries. We compose these group of variables based the SIC codes of U.S. financials. SIC60-61 is a dummy variable that equals one if the industry classification is depository/non-depository institutions, and zero otherwise. Similarly, SIC62, SIC63-64, and SIC67 show security/commodity brokers/dealers, insurance, and investment and financial services sub-sectors.

### Other Variables

Some macroeconomic control variables are taken into account. Saturation of firm's home market is an important element for its international expansion. If the home market is maturing, a firm has an economic incentive to seek new opportunities. The countries with favorable economic conditions (for example, expanding economies) are more likely to be an expansion spot. Vennet (1996) argues that an acquisition of a foothold presence for potential growth in foreign markets is a major reason for international takeovers. To measure the impact of economic conditions, we compose the following variables:

First, to estimate the foreign economic condition in the host country, we construct (FORECO) variable following Kiyamaz (2005). We describe this variable as the target country's GNP growth in the year prior to the announcement of the merger minus the average GNP growth rate of the target country during the study period, divided by the average GNP growth rate of the target country during the study period. This variable may be directly or inversely related to the wealth gains of U.S. bidders. If U.S. financials expect to gain market share and increase cash flow, then the impact would be positive. On the other hand, favorable economic conditions in the host market may force bidders to pay higher premiums to targets. U.S. financial bidders may become over-optimistic about the potential benefits and pay higher premiums to acquire the foreign targets. Overpayment for an takeover will translate into negative wealth gains to bidders. For example, Madura and Wiant (1994) conclude that negative abnormal returns to a bidder may be a result of offering a higher price to acquire the target.

Second, we use a dummy variable to capture economic development of target country. Waheed and Mathur (1995) report that expansion into developing countries yields higher wealth gains to the bidder. By using the IMF's classification, we divide target countries in two groups: advanced economy countries and developing economy countries. DEV is equal to one if the target country is a developing economy and zero if it is an

advanced country. As multinational firms can capitalize their expertise in developing economies to generate revenues and cash flows because of having less intense competition, we expect higher wealth gains when the destination country is a developing country.

GNPCORR variable is formed by following Kiyamaz and Mukherjee (2000). This variable is defined as the correlation between the annual growth rates in GNPs of the two countries over a twelve-year period ending in the year before the merger. Kiyamaz and Mukherjee (2000) argue the degree of divergence affects the extent to which the economies of two countries move together (that is the greater the differences, the lesser the co-movements). The purpose of this measure is to capture the difference between the business cycles in the countries of merging firms.

We also consider two exchange rate related variables. First, the relative strength or weakness of the domestic versus the foreign currency can influence the premiums paid in a merger. Currency strength can affect the takeover cost of the target firm, the choice of financing, and the value of the repatriated profits to the bidder. Vasconcellos, Madura, and Kish (1990) and Harris and Ravenscraft (1991) report that when the bidder's currency is strong relative to the target's currency, the target's shareholders receive greater wealth gains. We construct FXRATE variable as a two-step procedure used by Harris and Ravenscraft (1991): the exchange rate of the foreign currency (in terms of U.S. dollars) in the year of announcement is subtracted from the average exchange rate of the foreign currency during the study period. The difference is then divided by the average exchange rate. A positive (negative) value suggests the foreign currency is stronger (weaker) relative to the U.S. dollar.

The impact of strength of home currency on bidders is unclear because the expected future cash flows is a function of future exchange rates. Bidders are better off with stronger home currency during takeovers and a weaker home currency during repatriation of dividends and cash flows. Vasconcellos and Kish (1993) argue exchange rate effect is not clear and it is an empirical issue.

A variation of taking the impact of the exchange rate on wealth gains is to look at the volatility of exchange rates. The higher the volatility of exchange rate, the higher the uncertainty about the value of repatriated earnings to the parent company. Therefore the lower the wealth gains to bidders and targets. We frame FXVOL variable as the standard deviation of monthly exchange rates during the year of merger, expecting vary inversely with the wealth gains to bidders.

## **EMPIRICAL RESULTS AND DISCUSSIONS**

### Wealth Effects

The impact of takeover announcement on financial firms is estimated by using the market model. Panel A of Table 2 reports the preliminary results for daily abnormal returns surrounding the merger announcement. The average abnormal returns (AARs) for U.S. financials are 0.17% on the day of merger announcement and statistically weakly significant at 10% level. Panel B of Table 2 reports five different cumulative abnormal return (CARs) for many windows. For the (-1,0) and (-1,+1) windows, the CARs are 0.18% and 0.29% respectively, only the latter one is statistically significant at 10% level. These findings show the merger announcements affect stock prices positively but the impact is not strong.

Table 2: Abnormal Returns to U.S. Financial Bidders during Announcements of Takeovers

<b>Panel A: Average Daily Abnormal Returns (AARs) (%)</b>					
<b>Days</b>	<b>U.S. financial bidders (n=250)</b>				
	<b>AARs (%)</b>	<b>t-value</b>	<b>Positive: Negative</b>	<b>Generalized Sign Test</b>	
-10	0.22	1.49	126:124	0.61	
-9	-0.06	-0.69	114:136	-0.59	
-8	-2.58	1.80*	119:131	0.48	
-7	-0.10	-0.77	121:129	-0.06	
-6	-0.02	0.14	115:135	-0.59	
-5	0.09	0.06	120:130	-0.06	
-4	0.05	0.27	118:132	-0.46	
-3	0.20	1.54	121:129	-0.19	
-2	0.05	0.17	116:134	-0.72	
-1	0.17	1.67*	120:130	0.34	
0	0.01	0.47	125:125	1.01	
+1	0.11	1.09	123:127	0.61	
+2	-0.06	-0.29	126:124	1.27	
+3	-0.33	-2.29**	105:145	-1.39	
+4	0.15	1.60	127:123	1.41	
+5	-0.08	-0.44	121:129	0.48	
+6	-0.15	-1.10	112:138	-0.59	
+7	0.05	-0.02	121:129	0.34	
+8	0.20	1.39	130:120	0.88	
+9	-0.18	-1.78*	123:127	-0.06	
+10	0.02	0.30	132:118	1.88*	

  

<b>Panel B: Cumulative Abnormal Returns (CARs)</b>					
<b>Windows</b>	<b>U.S. financial bidders (n=250)</b>				
	<b>CARs (%)</b>	<b>t-value</b>	<b>Positive: Negative</b>	<b>Generalized Sign test</b>	
(-1,0)	0.18	1.51	124:126	0.98	
(-1,+1)	0.29	1.74*	126:124	0.96	
(-5,+5)	0.36	1.57	127:123	0.89	
(-10,+10)	0.53	1.06	131:119	1.08	
(-10,-2)	0.62	1.88*	123:127	1.45	
(+1,+6)	-0.36	-1.50	118:132	-1.51	

This table shows abnormal returns to U.S. financial bidder. \*\*\*\*, \*\* and \* indicate statistical significance at the 1%, 5% and 10% levels, respectively.

Panel A of Table 3 reports the CARs for U.S. bidders in six different windows for the location of the foreign target. U.S. financials acquiring firms in Latin America experience positive abnormal returns consistently. For example, the CARs for windows (-1,0), and (-1,+1) are 0.90% and 1.71% respectively. Both are statistically significant. Acquisitions in other regions (Asia/Pacific, Europe, North America and Others) yield insignificant positive/negative wealth gains. These findings support the view that there are differences in wealth gains with respect to the location of target firms.

Panel B of Table 3 outlines the detailed analysis of wealth gains to U.S. financial bidders using sub-sector affiliation. We note differences in wealth gains based on the sub-industrial affiliation as well. While U.S. financials operating in SIC63-64 and SIC67 groups experience statistically significant wealth gains in their cross-border acquisitions, firms operating in SIC60-61 group have mostly significant losses in many of the event windows under consideration. For example, SIC67 has CARs of 1.11% and 1.54% in (-1,0) and (-1,+1) event windows, both being statistically significant at 10% and 1% levels respectively. SIC60-61, on the other hand, has negative wealth gains of -2.11% on (-5,+5) event window that is significant in. It appears that while some subsectors experience wealth gains, others have wealth losses during the announcement of U.S. financials' international acquisitions.

Overall, U.S. financial bidders experience positive wealth gains that vary with the location of the targets. Wealth gains are statistically significant in takeovers in Latin America but either positive insignificant or negative for acquisitions in Asia/Pacific, Europe, and N. America. Negative wealth gains from N. American (mostly Canadian) targets may be a result of having similar economic and cultural environment in Canada, hence the lack of regional diversification benefits. With respect to industry classification,



bidders operating in SIC63-64 and SIC67 experience statistically significant positive wealth gains.  
 Table 3 Abnormal Returns to US Financial Bidders—Location of Target and Industry Affiliation of Bidders

Panel A: Location of Targets					
Windows	Locations of foreign targets				
	Europe N=138	Asia/Pacific n=31	N. America n=35	Latin America n=35	Other Locations n=11
(-1,0)	0.27 (1.43)	0.48 (0.98)	-0.87 (-0.96)	0.90 (2.09**)	-0.61 (-0.59)
(-1,+1)	0.09 (0.45)	0.60 (0.99)	-0.79 (-1.02)	1.71 (2.98**)	0.02 (0.01)
(-5,+5)	0.54 (1.04)	-0.03 (-0.10)	-1.23 (-1.09)	1.83 (1.70*)	2.54 (1.43)
(-10,+10)	0.89 (1.39)	-1.34 (-0.78)	-0.89 (-0.77)	0.81 (1.44)	4.75 (1.88*)
(-10, -2)	0.71 (1.21)	-0.10 (-0.02)	-0.59 (-0.49)	2.01 (1.81*)	4.01 (1.79*)
(+1,+6)	0.26 (0.67)	-1.26 (-1.37)	-0.87 (-0.73)	1.54 (1.60)	-0.07 (-0.03)

  

Panel B: Sub-sector Affiliation				
Windows	Sub-sector affiliations of financial bidders			
	SIC60-61 n=63	SIC62 n=38	SIC63-64 n=106	SIC67 n=43
(-1, 0)	-0.79 (-1.58)	0.32 (0.62)	0.34 (1.03)	1.11 (2.21**)
(-1, 1)	-0.68 (-0.89)	-0.18 (-0.29)	0.43 (1.57)	1.54 (2.89***)
(-5, 5)	-2.11 (-2.28**)	-0.40 (-0.29)	1.69 (2.88***)	1.62 (2.01**)
(-10, 10)	-2.90 (-2.78***)	1.50 (1.33)	1.92 (3.11***)	1.51 (1.89*)
(-10, 2)	-2.05 (-2.10**)	0.58 (0.43)	2.01 (3.25***)	2.14 (1.78*)
(1, 6)	-1.86 (-2.22**)	0.02 (0.02)	0.25 (0.89)	1.63 (1.71*)

This table shows abnormal returns to US financial bidders based on the target and industry affiliation of bidders. \*\*\*, \*\* and \* indicate statistical significance at the 1%, 5% and 10% levels, respectively.

### Factors Influencing Wealth Effects

The following equation was estimated to identify the determinants of wealth gains (CAR) to bidders.

$$\begin{aligned}
 CAR = & \beta_0 + \beta_1 \text{EconRisk} + \beta_2 \text{FinRisk} + \beta_3 \text{PoliRisk} + \beta_4 \text{Europe} + \beta_5 \text{AsiaPacific} + \beta_6 \text{N.America} \\
 & + \beta_7 \text{LatinA} + \beta_8 \text{Others} + \beta_9 \text{SIC6061} + \beta_{10} \text{SIC62} + \beta_{11} \text{SIC6364} + \beta_{12} \text{SIC67} + \beta_{13} \text{Foreco} + \beta_{14} \text{Develop} \\
 & + \beta_{15} \text{GNPCorr} + \beta_{16} \text{FXRate} + \beta_{17} \text{FXVol} + \varepsilon
 \end{aligned}
 \tag{4}$$

Table 5 contains regression results for five separate equations. Correlation among explanatory variables indicates that multi-collinearity is not a problem to influence interpretation of the results. To control for heteroskedasticity problem, we normalize variables by the standard errors of the market model (Kiyamaz 2005).

Each equation adds a new group of independent variables into the analysis. The first equation in each table uses country risk variables to explain wealth effects. The second equation contains country risk variables along with geographic variables, the third equation includes country risk and industry classification variables. Fourth equation has both country risk and other variables. Finally, the fifth equation put together all variables.

The adjusted R<sup>2</sup> for all regressions ranges from 0.072 to 0.429. The impact of country risk in explaining the wealth gains to U.S. financials is clear as those variables mostly continue to be significant as we control for other factors. ECONRISK, FINRISK, and POLIRISK are statistically significant across each

set of equation. For example, ECONRISK has a coefficient of 0.0119 in the first equation, suggesting a higher wealth gains for the bidders involved acquisitions in low economic risk environment such as low annual inflation, low budget deficit as a percentage of GDP. This would show that a 10% increase in economic risk rating of county would translate a 12% increase in wealth gains to acquiring firms.

On the other hand, the inverse relation between wealth gains and financial and political risk ratings suggest that acquisition in countries with higher financial and political risk rating (higher risk) result in lower wealth gains to bidders. This may be result of bidding firms negotiating a better deal as bad financial/political conditions present opportunity for U.S. financials to pay lower premiums to target. Market does not seem to be punishing the investments in less stable countries with more internal/external

Table 5: Cross-sectional Regression Results for U.S. Financial Bidders

Variables	1	2	3	4	5
Constant	0.0238 (0.17)	-0.5718 (-3.77)**	0.0504 (0.39)	-0.0273 (-0.17)	-0.4208 (-2.76)**
<b>Country Risk Variables</b>					
ECON	0.0119 (3.56)***	0.0060 (1.79)*	0.0140 (4.37)***	0.0033 (0.90)	0.0067 (2.02)**
FIN	-0.0044 (-2.25)**	-0.0030 (-1.46)	-0.0064 (-3.25)***	-0.0053 (-2.45)**	-0.0017 (-0.78)
POLITICAL	-0.0031 (-1.87)*	-0.0028 (-1.49)	-0.0035 (-2.25)**	-0.0026 (-1.28)	-0.0032 (-1.71)*
<b>Geographic Variables</b>					
EUROPE	-	-0.0019 (-0.06)	-	-	0.0124 (0.47)
ASIA/PACIFIC	-	-	-	-	-
N. AMERICA	-	-0.0351 (-1.08)	-	-	-0.0105 (-0.34)
LATINA	-	0.1929 (5.91)***	-	-	0.1057 (3.27)***
OTHERS	-	0.0183 (0.38)	-	-	-0.0019 (-0.04)
<b>Sub-sector Classification Variables</b>					
SIC60-61	-	-	-0.0804 (-2.92)***	-	-0.1032 (-4.32)***
SIC62	-	-	-	-	-
SIC63-64	-	-	0.0156 (0.62)	-	0.0059 (0.28)
SIC67	-	-	0.1226 (4.72)***	-	0.0547 (2.28)**
<b>Other Variables</b>					
FORECO	-	-	-	-0.075 (-3.98)***	-0.0488 (-3.12)**
DEVELOP	-	-	-	0.0626 (2.68)**	0.0377 (1.96)*
GNPCORR	-	-	-	-0.1320 (-3.71)***	-0.0566 (-1.75)*
FXRATE	-	-	-	-0.0171 (-0.27)	-0.0008 (-0.02)
FXVOL	-	-	-	-0.0125 (-2.47)**	-0.0069 (-1.67)*
Adj. R <sup>2</sup>	0.0724	0.251	0.313	0.250	0.429
F-stat	6.40***	12.96***	19.95***	11.37***	12.70***

This table shows cross sectional results for U.S. financial bidders. \*\*\*, \*\* and \* indicate statistical significance at the 1%, 5%, and 10% levels respectively.

conflict, more corruption, and lower disclosure and accountability. Similarly financial risk variable is inversely related to wealth gains to U.S. financial bidders. Markets may view investments in countries with high opportunities.

The second equation in Table 5 adds geographic dummy variables into the analysis. To avoid dummy variable trap, Asia/Pacific variable is chosen as a control group. The coefficient of LATINA is 0.1929 and significant while the coefficients of remaining groups (EUROPE and NAMERICA) are negative and insignificant. Findings suggest that takeovers in LATINA region yield significantly higher wealth gains to U.S. financials relative to control group (i.e. ASIA/PACIFIC). There is no evidence of statistical difference between the remaining groups (EUROPE, NAMERICA, and OTHERS) and control group. Cakici, Hessel, and Tandon (1996) and Kiyamaz (2005) also report similar findings.

We add industry classification dummy variables into analysis in the fourth equation. Here SIC62 (Securities/Commodity Brokers/Dealers) group is chosen as the control group. We interpret the findings for the remaining sub-industry groups relative to the control group. For example, SIC67 has a coefficient of 0.1226 and statistically significant at the 1% level, showing that acquisitions by U.S. investment and financial services firms (SIC67) yield higher wealth gains relative to the acquisitions by firms SIC62 group. On the other hand, SIC60-61 (Depository/Non-depository institutions) has a statistically significant coefficient of -0.0804, suggesting that institutions in this group (SIC60-61) experience lower wealth gains compared to firms in SIC62 group.

The fourth equation adds the other control variables to country risk variables in explaining wealth gains. The financial risk variable continues to be significant. Four of the macroeconomic control variables are statistically significant. These are FORECO, DEV, GNPCORR, and FXVOL variables. For example, DEV has a coefficient of 0.0626 and is directly related to the wealth gains to U.S. financial bidders. It has the hypothesized positive sign indicating that acquisition in developing countries yields greater wealth gains for U.S. financial bidders. This finding is in line with Waheed and Mathur (1995) who report that expansion into developing countries yields higher wealth gains to bidders. GNPCORR variable has negative sign indicating that the wealth gains are higher when countries have varying business cycles. Kiyamaz (2000) also report similar results.

FORECO has negative sign implying an inverse relation between wealth gains to bidder and foreign economic condition. We interpret this finding as U.S. bidders paying higher premium to the targets when economic conditions are more favorable. Alternatively this may imply bidder overpaying to target because of optimistic potential of takeover. Madura and Wiant (1994) argue the negative return to the bidder may be a result of higher offer price to target. The last significant variable is FXVOL that has a coefficient of -0.0125, suggesting the higher volatility of exchange rate, the higher the uncertainty about the value of future cash flows and therefore the lower the wealth gains to bidders. The remaining macroeconomic variable, FXRATE, does not appear to have any significant impact on wealth gains in this study.

The final equation includes country risk factor, geographic, industry classification, and other macroeconomic control variables. Two of the country risk variables along with the macroeconomic control variables continue to be statistically significant after controlling the location of target firms and industrial affiliation of bidders.

Generally, the results of the cross-sectional regressions demonstrate that the country risk factors and some of the control variables play significant roles in explaining wealth gains to bidders. For example, the ECONRISK, FINRISK and POLIRISK are mostly significant for U.S. financials. While ECONRISK is directly related to wealth gains, FINRISK and POLIRISK are inversely related to wealth gains, suggesting

the higher the economic risk rating (lower risk) results in higher wealth gains to U.S. bidder. Takeover in financially and politically less stable environment may be viewed because of bidders becoming overoptimistic about the potential and overpaying the targets. Among the geographic variables, the acquisitions in Latin American region clearly yield the highest returns. The findings of this study suggest the cross-border merger slightly benefit bidders. This may imply that consolidation in the cross-border arena may continue in the future. Favorable economic conditions in target and bidder's country are likely to increase cross-border merger activities. Finding varying wealth gains in different regions may imply that certain regulation by economic unions to protect domestic industries makes it difficult or costly for foreign bidders to enter these markets and limit the global consolidation internationally.

## **CONCLUSION**

This study examines the impact of mergers and acquisitions on U.S. financials involved in cross-border takeovers. The sample consists of 250 cross-border takeovers by U.S. financials. The findings show that these firms experience weakly statistically significant wealth gains on the announcement day. Further analysis of geographical location of foreign targets, suggests there are differences in wealth gains with respect to the location of the foreign target. U.S. financial bidders only experience significant wealth gains in their acquisitions of targets located in Latin America. Similarly there are differences in wealth gains in sub-sectors of financials. For example, U.S. financials in SIC67, SIC63-64 experience higher wealth gains than others.

The regression results show the country risk factors are important in explaining the wealth gains to U.S. financial bidders. There are direct relationships between wealth gains to U.S. bidders and the economic risk rating and inverse relations between wealth gains to U.S. bidders and financial and political risk ratings. Also, economic development of target, correlation in GNP growth, economic outlook in the host market, and exchange rate volatility relate significantly to the gains to U.S. bidders.

The study period covers one of the merger cycles. Merger studies tend to be time dependent. It would be interesting to see how these results would hold for other merger cycles. Further, this paper focuses on financials and takeovers in developed markets. Future studies may focus on other sectors and emerging markets.

## **REFERENCES**

- Berger, A.N., R. DeYoung, H. Genay, and G.F. Udell (2000) "The Globalization of Financial Institutions: Evidence from Cross-border Banking Performance," *Brookings-Wharton Papers on Financial Services* 3, p.23-125.
- Brown, S.J. and J.B. Warner (1985) "Using Daily Stock Returns: The Case of Event Studies," *Journal of Financial Economics* 14, p. 3-31.
- Cakici, N., C. Hessel, and K. Tandon (1996) "Foreign Acquisitions in the United States: Effect on Shareholder Wealth of Foreign Acquiring Firms," *Journal of Banking and Finance* 20, p. 307-329.
- Click, R. (2005) "Financial and Political Risk in US Direct Foreign Investment," *Journal of International Business Studies* 36, p. 559-575.
- Cybe-Ottone, A. and M. Murgia (2000) "Mergers and Shareholders Wealth in European Banking," *Journal of Banking and Finance* 24, p. 831-859.
- Diamonte R.L, J.M. Liew, and R. Stevens (1996) "Political Risk in Emerging and Developed Markets," *Financial Analyst Journal* 52(8), p. 71-76.

Doukas, J. A. and O.B. Kan, (2006) “Does Global Diversification Destroy Firm Value,” *Journal of International Business Studies* 37, p. 352-371.

Doukas, J.A. and L.P. Lang, (2003) “Foreign Direct Investment, Diversification, and Firm Performance,” *Journal of International Business Studies* 34, p. 153-172.

Doukas, J., and N. Travlos (1988) “The Effect of Corporate Multinationalism on Shareholders' Wealth: Evidence from International Acquisitions,” *Journal of Finance* 23, p. 1161-1178.

Erb, C.B., R.H. Campbell, and T.E. Viskanta (1996) “Political, Economic, and Financial Risk,” *Financial Analyst Journal* 52(6), p. 29-46.

Frames, S., and W.D. Lastrapes, (1998) “Abnormal Returns in the Acquisition Market: The Case of Bank Holding Companies,” *Journal of Financial Services Research* 14, p. 145-163.

Habib, M. and L. Zurawicki, (2002) “Corruption and Foreign Direct Investment,” *Journal of International Business Studies* 33(2), p. 291-307.

Harris, R.S. and D. Ravenscraft (1991) “The Role of Acquisitions in Foreign Direct Investment: Evidence from the U.S. Stock Market,” *Journal of Finance* 46: 825-844.

Houston, J.F. and M.D. Ryngaert (1994) “The Overall Gains from the Large Bank Mergers,” *Journal of Banking and Finance* 18, p. 155-1176.

Hughes, J.P. and L.J. Mester (1998) “Evidence of Scale Economies in Risk Management and Signaling,” *Review of Economics and Statistics* 80, p. 314-337.

*International Country Risk Guide (ICRG.)*

Kiymaz, H. and T.K. Mukherjee (2000) “The Impact of Country Diversification on Wealth Effects in Cross-border Mergers,” *Financial Review* 35, p. 37-58.

Kiymaz, H. (2005) “Cross-border Acquisitions of US Financial Institutions: Impact of Macroeconomic Factors,” *Journal of Banking and Finance* 28, p. 1413-1439.

Kiymaz, H. (2009) “The Impact of Country Risk Ratings on U.S. Firms in Large Cross-border Acquisitions,” *Global Finance Journal* 20:3, p. 235-253

Madura, J. and K.J. Wiant (1994) “Long-term Valuation Effects of Bank Acquisitions,” *Journal of Banking and Finance* 18: 1135-1154.

Markides C. and C.D. Ittner (1994) “Shareholder Benefits from Corporate International Diversification: Evidence from U.S. International Acquisitions,” *Journal of International Business Studies*, p. 343-366.

*Mergers and Acquisitions*, various issues.

Moeller, S. B. and F. P. Schlingemann (2005) “Global Diversification and Bidder Gains: A Comparison between Cross-border and Domestic Acquisitions,” *Journal of Banking and Finance* 29, p. 533-564.

Vasconcellos, G.M., J. Madura, and R.J. Kish (1990) “An Empirical Investigation of Factors Affecting Cross-border Acquisitions: U.S. vs. U.K. Experience,” *Global Finance Journal* 1, p. 173-189.

Vasconcellos, G.M. and R.J. Kish (1993) “Factors Affecting Cross-border Mergers and Acquisitions and International Capital Flows: U.S. vs. Japan, in: S.L. Goldman, ed., *Competitiveness and American Society*, L. Goldman, Bethlehem Lehigh University Press.

Vennet, R.V. (1996) “The Effects of Mergers and Acquisitions on the Efficiency and Profitability of EC Credit Institutions,” *Journal of Banking and Finance* 20, p. 1531-1558.

*The Wall Street Journal Corporate Index*

Waheed, A. and I. Mathur, I. (1995) “Wealth Effects of Foreign Expansion by U.S. Banks,” *Journal of Banking and Finance* 19, p. 823-842.

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