

# Is Emerging Market Money Smart?

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# Outline

- Motivation
- Related Literature
- Data Description
- Econometric Strategy
- Empirical Results
- Conclusion

# Motivation

- Neoclassical theory: capital should flow from capital-abundant to capital-scarce countries
- Burgeoning trend → outbound FDI flows from emerging economies to the developed world

# Motivating Rational for Traditional Theories of FDI

- Comparative input costs
- Market access
- Cross-border technology transfer
- Natural Resources

# Motivating Rational for Emerging-Market FDI

- Comparative input costs (In-sourcing?)
- Market access
- Cross-border technology transfer
- Natural Resources

- Only the most productive firms tend to become multinationals (Helpman, Melitz and Yeaple (2004) )
- multinationals would enhance the performance of their acquired firms abroad.

# This Paper

- Focus on US acquisitions by emerging-market firms
- Combine M&A specific data with financial statement data
- Ex-ante announcement returns (Stock market measure)
- Evaluate Ex-post Performance (Accounting measure)
- Control for selection bias using propensity score matching

## Related Literature

- Mixed evidence on firm performance following M&A transactions in the US
  - Andrade, Mitchell and Stafford (2001)
- Foreign ownership increases productivity growth rate in UK
  - Girma et al. (2005, 2006, 2007)
- Evidence from Indonesian and Indian firms that foreign ownership leads to productivity increase
  - Arnold and Javorcik (2005)
  - Petkova (2008)



# Data Description

- Acquisition FDI from SDC Thompson M&A database with daily information on all deals into the U.S. between 1979 and July, 2007
- Transaction-specific information
  - date announced & completed
  - SIC classification
  - percent of shares sought & acquired

## The Data

- Combine SDC data with Compustat financial statement data
- Number of total transactions between emerging market firm and US public firms: 259

# Our sample size

- 7,996 Completed M&A transactions between foreign acquirer and US targets = 7,996
- Transactions conducted between foreign firms and public US targets = 2,368
- Developing country acquisitions = 480
- Eliminate countries that are tax havens, e.g. Bahamas, Bermudas, → sample = 259.

# Top Ten Transactions (1)

Target Industry	Acquiror Name	Acquiror Industry	Share acquired	Value of Acq in \$mil	Acquirer Nation	Payment Method
Mnfr steel tubular prod	Tenaris SA	Mnfr seamless steel pipe prod	100	\$3,096	Argentina	Cash Cash Only
Mnfr cement; limestone mining	CEMEX SA DE CV	Mnfr,whl cement,ready-mix prod	100	\$2,846	Mexico	Cash Liabilities
Mnfr electronic components	Flextronics International Ltd	Mnfr electcn components	100	\$2,591	Singapore	Common Stock
Mnfr oil,gas drilling equip	Tenaris SA	Mnfr seamless steel pipe prod	100	\$2,212	Argentina	Cash Cash Only
Mnfr steel prod	Evrz Group SA	Mnfr,whl steel	90.87	\$2,088	Russian Fed	Cash Cash Only
Oil and gas exploration, prodn	YPF SA	Oil and gas exploration,prodn	100	\$1,844	Argentina	Cash Liabilities
Mnfr semiconductors	ST Assembly Test Services Ltd	Mnfr semiconductor testing	100	\$1,459	Singapore	Amer. Depy. Receipt
Investment management services	Old Mutual South Africa	Insurance co	100	\$1,457	South Africa	Cash Cash Only
Mine, smelt, refine metals	Nueva Grupo Mexico SA de CV	Mining investment holding co	90.48	\$1,073	Mexico	Cash Cash Only
Provide cellular commun svcs	Hutchison Whampoa Ltd	Pvd telecom svcs	6.03	\$957	Hong Kong	Cash Cash Only

# Top Ten Transactions-India (1)

Date	Target	Target Industry	Acquirer	Acquirer Industry
8/23/2006	Energy Brands Inc	Food	Tata Tea	Food
6/3/2007	CIL Carbon LLC	Oil & Gas	Rain/CIL holdings Inc	Oil & Gas
6/25/2006	Eight O Clock Coffee Co	Food	Tata Coffee	Food
2/8/2000	Mphasis Corp	Prepackaged Software	BFL Software	Prepackaged Software
5/11/2006	Polaroid Holding Co	Medical, Photo Equip.	Videocon Industries	Electronics
9/17/2006	Ritz-Carlton, Boston	Hotels & Casinos	Indian Hotels Co	Hotels & Casinos
11/9/2006	Ritz-Carlton, Boston	Hotels & Casinos	Taj Hotels	Hotels & Casinos
2/26/2007	LASON Inc	Business Services	HOV Services	Business Services
11/14/2006	Cerexagri Inc	Chemicals & Allied	Uniphos Enterprises	Chemicals & Allied
11/1/2004	Tyco Global Network	Radio & TV Broadcasting	VSNL	Telecommunications

## Top Ten Transactions-India (2)

Target	Acquiror	%	Value	Acquirer	Payment
Energy Brands Inc	Tata Tea		677	Public	Cash
CII Carbon LLC	Rain/CII holdings Inc		595	Sub.	Cash
Eight O Clock Coffee	Tata Coffee	100	220	Public	Cash
Mphasis Corp	BFL Software	100	200.825	Public	Shares
Polaroid Holding Co	Videocon Industries		200	Public	Cash
Ritz-Carlton, Boston	Indian Hotels Co		170	Public	Cash
Ritz-Carlton, Boston	Taj Hotels		170	Sub.	Cash
LASON Inc	HOV Services	100	148	Public	Cash
Cerexagri Inc	Uniphos Enterprises	100	142.259	Public	Cash
Tyco Global Network	VSNL	100	130	Public	Cash

# Top Ten Transactions-China (1)

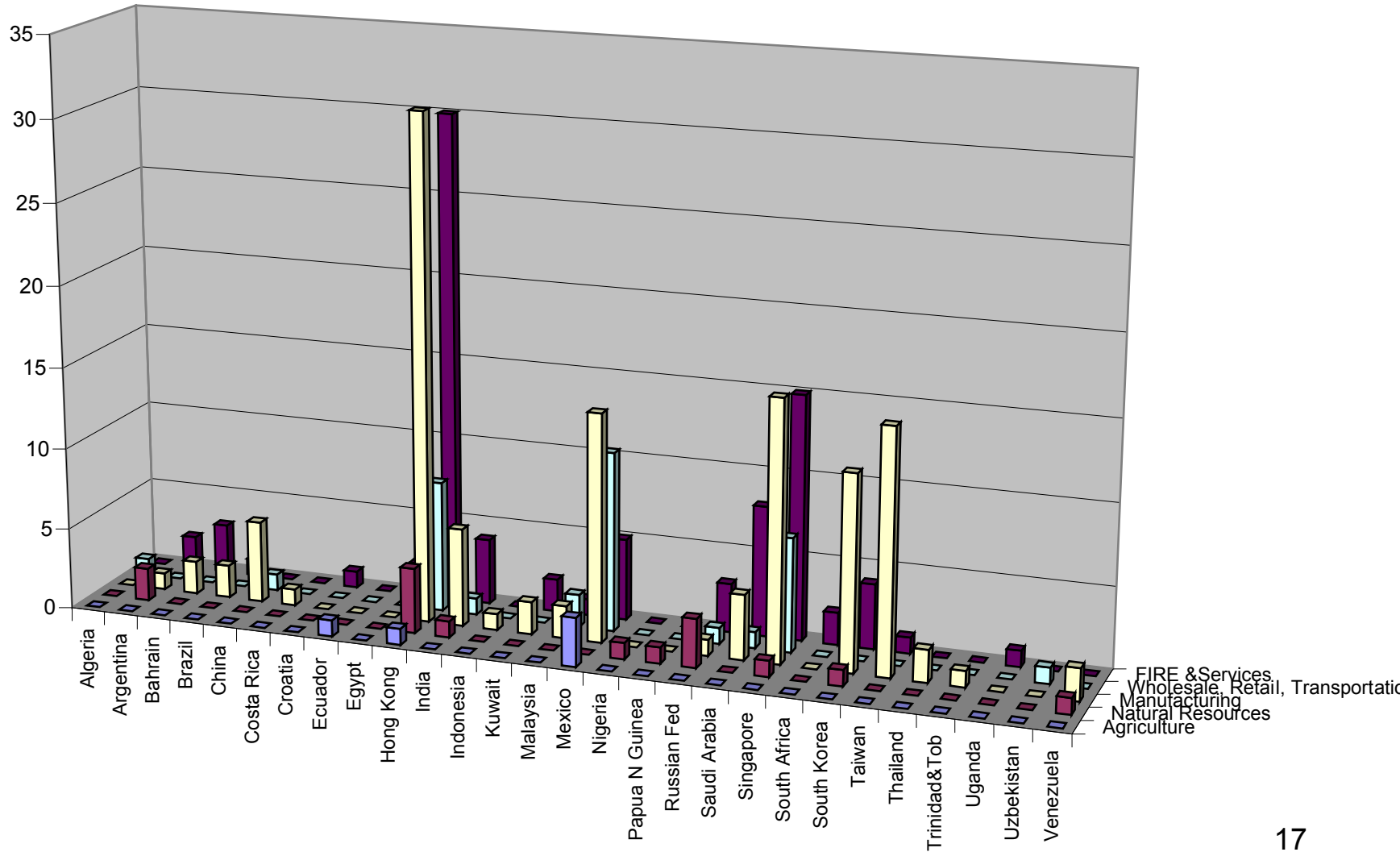
Date	Target Name	Target Industry	Acquirer Name	Acquirer Industry
6/22/2005	Unocal Corp	O&G; Petro-Refining	CNOOC	O&G; Petro-Refining
5/20/2007	Blackstone Group LP	Investment Firms	Peoples Republic of China	Public Administration
2/7/2007	New XCL-China LLC	O&G; Petro-Refining	SINOCEM Petro Expl & Prodn	O&G; Petro-Refining
9/6/2006	Multi-Shot LLC	O&G; Petro-Refining	Jingsu Corp	Chemicals & Allied
5/18/2007	I/O Magic Corp	Computer & Office Equip.	Jiangxi Greatsource Display	Electronics
3/21/1995	Delphi Automotive Sys-Magnaque	Transport Equip.	San Huan Group Inc	Transportation Equip.
12/16/1994	Western Co of N America-We	O&G; Petro-Refining	China Nat Mach Import & Export	Durable Goods
7/29/2004	Unical Enterprises Inc	Communications Equip.	Industries International Inc	Comm Equip.
6/28/1995	GM Corp-Magnequench Factory	Stone, Clay, Glass	Investor Group	Investment Firms
4/30/1993	BMC Industries Inc-Aperture	Electronics	China Electrn Import & Export	Durable Goods

## Top Ten Transactions-China (2)

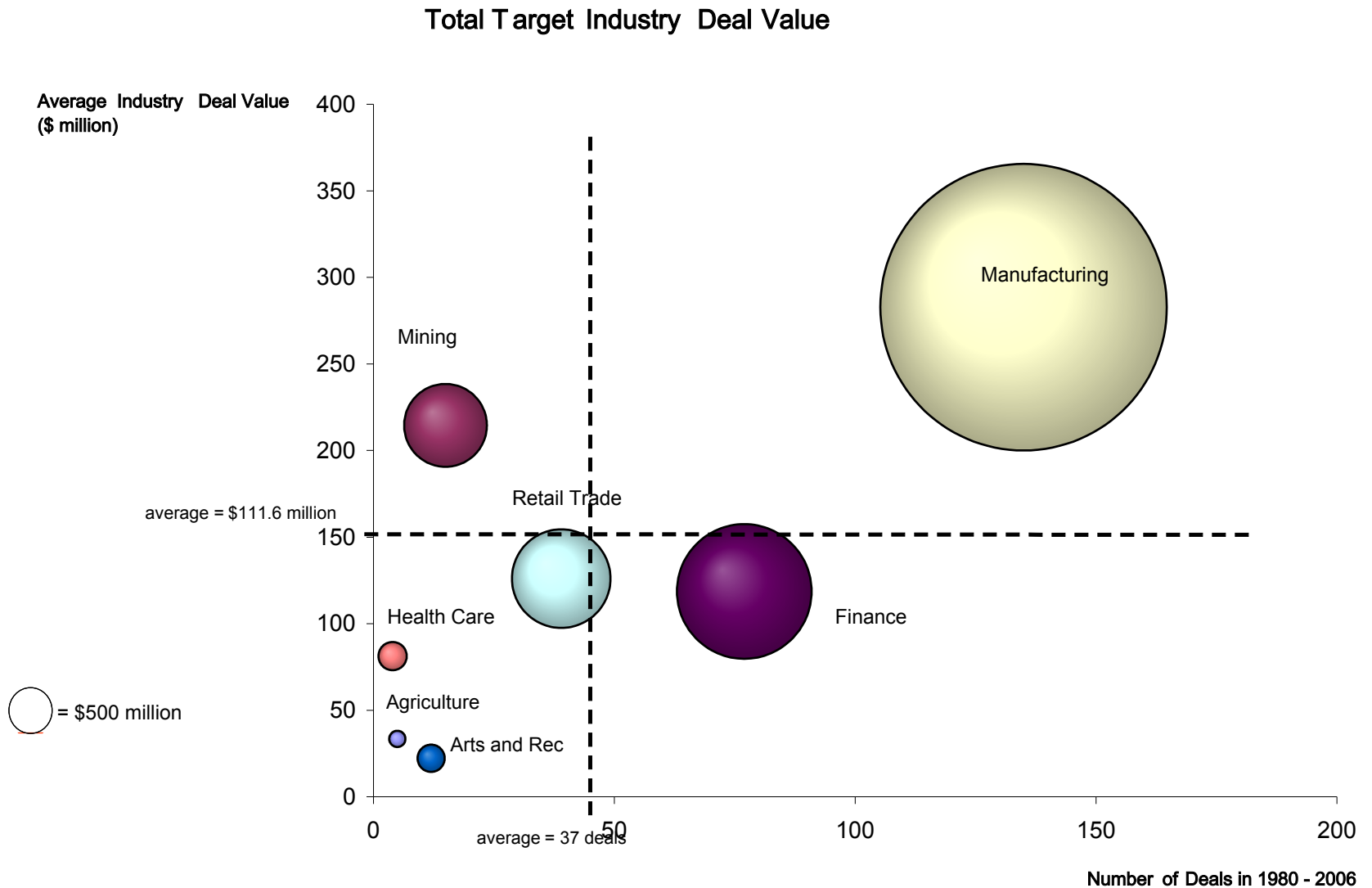
Target Name	Acquirer Name	%	Value	Acquire	Payment
Unocal Corp	CNOOC		18,472.08	Govt.	Cash
Blackstone Group LP	Peoples Republic of China		3,000.00	Govt.	Cash
New XCL-China LLC	SINOCHEM Petro Expl & Prod	100	228	Sub.	Cash
Multi-Shot LLC	Jingsu Corp		123.077	Priv .	Stock
I/O Magic Corp	Jiangxi Greatsource Display		95	Priv .	Cash
Delphi Automotive Sys-Magnaqu	San Huan Group Inc	100	70	Priv .	CashNote
Western Co of N America-We	China Nat Mach Import & E	100	37.5	Govt.	Cash
Unical Enterprises Inc	Industries International Inc	100	36.4	Public	Ordinary Share
GM Corp-Magnequench Factor	Investor Group	100	29	Priv .	NoteCash
BMC Industries Inc-Apper ture	China Electrn Import & Export		26	Govt.	Cash



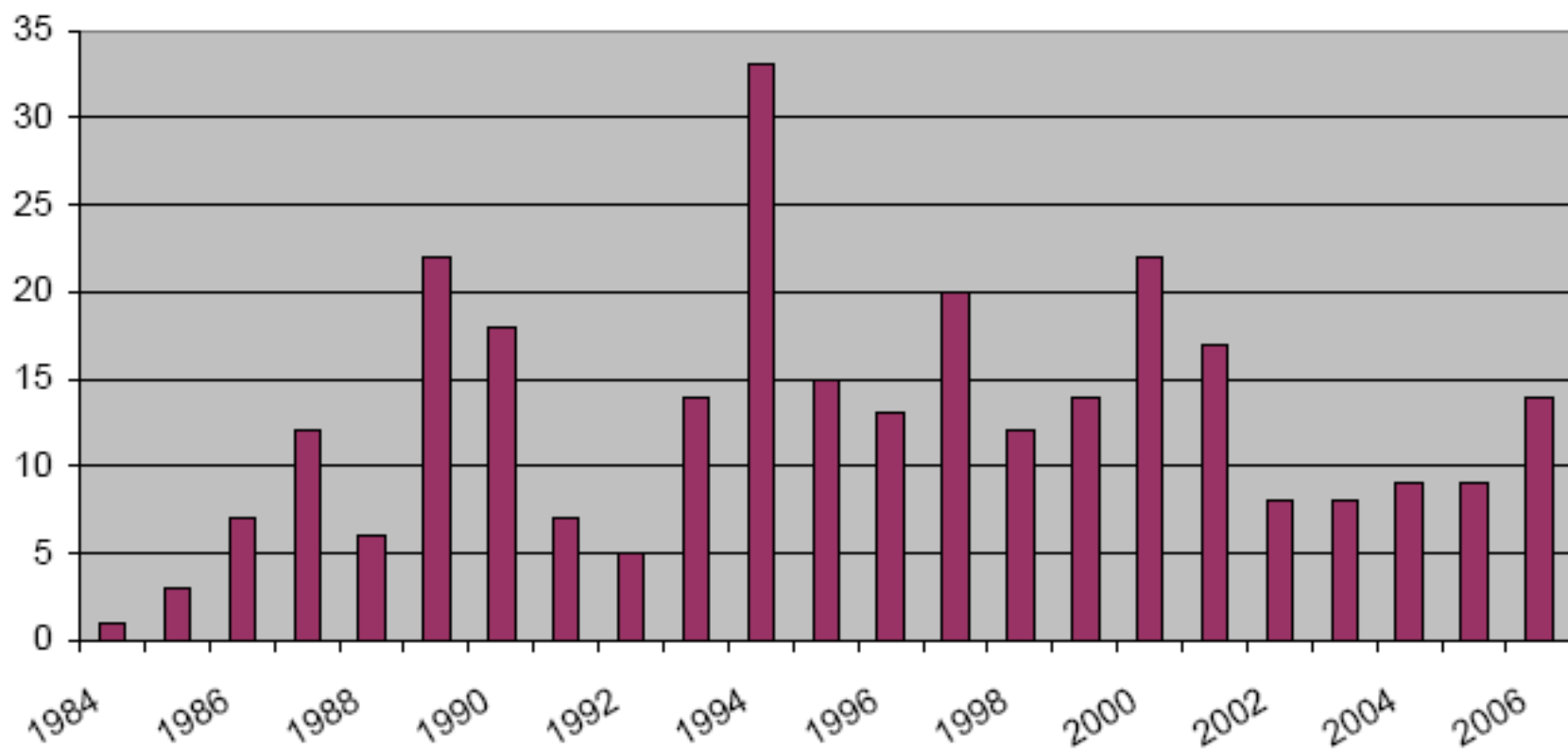
# Decomposition of US Targets by Industry and Country



# Number and Value of M&A deals by Target Sector



**Distribution of US Acquisitions by Developing Country Firms by Year**



# Acquirer Nation By Number and Value of M&A

Country	Total Number of Transactions	% of Total Transactions	Nominal Transaction Value (\$ mil)
Hong Kong	74	28.57%	3617.441
Singapore	39	15.06%	6453.667
Mexico	33	12.74%	10286.24
South Korea	17	6.56%	1492.222
Taiwan	16	6.18%	739.842
Saudi Arabia	13	5.02%	1518.797
India	12	4.63%	158.246
Russian Fed	8	3.09%	965.572
China	6	2.32%	44.83
Malaysia	5	1.93%	56.61
Bahrain	5	1.93%	478.356
Argentina	5	1.93%	35.794
Kuwait	4	1.54%	5.745
Venezuela	3	1.16%	65.77
Brazil	3	1.16%	4.313
Thailand	2	0.77%	27.12
South Africa	2	0.77%	1900.151
Egypt	2	0.77%	8.905
Uzbekistan	1	0.39%	30.8
Uganda	1	0.39%	0.68
Trinidad&Tob	1	0.39%	0.6
Papua N Guinea	1	0.39%	2.7
Nigeria	1	0.39%	6
Indonesia	1	0.39%	23
Ecuador	1	0.39%	NA
Croatia	1	0.39%	1
Costa Rica	1	0.39%	12.5
Algeria	1	0.39%	NA
<b>Total</b>	<b>259</b>	<b>100.00%</b>	<b>27936.901</b>

# Event study estimates

- The stock price response of the target is positive and significant around the time of the acquisition announcements.
- The mean cumulative returns on the target stock price within a three-day window around the announcement date of the acquisition increases by 8%.
- This return remains significant and positive extending the window to eleven and twenty-one business days.
- Is the ex-ante return reflected in ex-post performance?

# Econometric Strategy

- Problem: Selection Bias
- Ideal: compare acquired firms to the same ones in the case the firms are not acquired (counterfactuals)
- Alternative Solution: Create controls that have similar characteristics to those of acquired firms
- Use propensity score matching to create appropriate controls
- Pair propensity score matching with Difference-in-Differences to control for time invariant and unobservable firm characteristics

# Propensity Score Matching

- Average effect of treatment on the treated (ATET):

$$E[y_{i,t,u}^1 - y_{i,t,u}^0 \mid A = 1]$$

$$E[y_{i,t,u}^1 \mid A = 1] - E[y_{i,t,u}^0 \mid A = 0] = E[y_{i,t,u}^0 \mid A = 1] - E[y_{i,t,u}^0 \mid A = 0]$$

- Conditional independence assumption (CIA):

$$E[y_{i,t,u}^0 \mid X, A = 1] = E[y_{i,t,u}^0 \mid X, A = 0]$$

- X are observable covariates

- Matching accounts for differences in observable characteristics.
- Combination with difference-in-differences analysis eliminates the differences between the treated and control groups that are unobservable and time invariant.



# Difference-in-Differences Matching Estimator

$$\hat{\alpha}_{DDM} = \frac{1}{n_1} \sum_{i \in \{A_1, 1\}} \sum_{t \in S_p} [(y_{i,t}^1 - y_{i,t'}^1) - W(P_i, P_j)(y_{i,t}^0 - y_{i,t'}^0)]$$

$W(P_i, P_j)$  – Gaussian Kernel Weighting Function

$n_1$  – number of treated firms in support set

# Timing Issue

- Acquisitions happen at various times throughout sample time period
- Random Acquisition Time Assignment

# Random Time Assignment

- assign hypothetical treatment year to the control group firms in the same proportion as their occurrences in the treated group
- control group consists of firms that remained non acquired throughout the entire span of our data
- set  $t = 0$  in the year of acquisition (actual or hypothetical)
- Estimate Probit based on firm characteristics in period  $t = -1$

# Choice of Covariates

- age
- total asset
- sales
- market share
- operating income before depreciation (OIBD)
- long term debt
- cash
- capital expenditure
- log of employment

## Outcome Variables of Interest

- OIBD/Total Assets (return on asset, ROA)
- Net Income/Total Asset
- Capital Expenditure/Total Asset
- Log Employment
- Log Sales

**Statement of Income — Example**  
*(figures in millions)*

**Operating Revenues**

Net Sales \$20,438

**Operating Expenses**

Cost of goods sold \$7,943

Selling, general and administrative expenses \$8,172

**Operating income before depreciation (OIBD)** **\$4,323**

Depreciation and amortization \$960

Other expenses \$138

Total operating expenses \$17,213

**Operating income** **\$3,225**

Nonoperating income \$130

Net interest expense \$145

**Earnings before income taxes** **\$3,210**

Income taxes \$1,027

**Net income** **\$2,183**

## Number of Acquisitions and Industry Characteristics

NAICS	Industry	Freq.	Firms	Acquired	Mean OIBD/Asset	Mean Log Sales	Mean log Empl
11	Agriculture	2,015	81	5	0.022	3.371	-0.954
21	Natural Resources	13486	1,287	12	-1.058	2.746	-2.405
22	Utilities	10085	495	2	0.106	6.182	0.414
23	Construction	3733	315	1	-1.861	4.126	-1.095
31-33	Manufacturing	92935	7604	118	-0.253	4.276	-0.370
42	Wholesale Trade	9217	805	8	-0.168	4.699	-0.817
44-45	Retail Trade	10802	978	16	0.061	5.705	0.991
48-49	Transportation and Warehousing	6417	576	10	0.080	5.704	0.670
51	Information	22753	2,627	30	-0.857	3.955	-0.712
52	Finance and Insurance	30786	4,828	20	-0.107	4.478	-0.624
53	Real Estate	6042	531	8	-0.263	2.665	-2.104
54	Professional Services	10097	1,050	6	-0.389	3.331	-1.171
56	Administrative Services	4743	492	1	-0.508	3.957	-0.287
62	Health Care and Social Assistance	4049	441	2	-0.099	3.933	-0.261
71	Arts, Entertainment, and Recreation	1848	193	2	-0.730	3.278	-0.775
72	Accommodation and Food Services	5245	469	10	-0.007	4.187	0.505
81	Other Services	1126	115	8	0.000	3.616	-0.606

## Evidence of Selection Bias (Table 5)

Compared to firms that are not acquired, in the three years leading up to the acquisition, firms that are acquired:

- Larger (Sales and Assets)
- More employees
- Lower capital expenditure
- Lower profits



## Probit Estimation for Random Time Assignment

Dependent Variable: Pr(Foreign Acquisition)

	Marginal Effect	Std. Err.
age	-0.0009634	0.0008048
age2	0.0000170	0.0000146
OIBD	<b>-0.0000476</b>	0.0000107
log Debt	<b>-0.0028325</b>	0.0013747
Cash	0.0000067	0.0000086
MktShareInd2	<b>-1.4272490</b>	0.7404682
log Assets	0.0054931	0.0037878
Log Sales	<b>0.0074898</b>	0.0039040
log Empl	-0.0006531	0.0029244
Cap Exp	<b>0.0000259</b>	0.0000106
industry fixed effects		yes
year fixed effects		yes
region fixed effects		yes
Observations		3422
Pseudo R-squared		0.1359

All variables are lagged by one year

**Impact of Developing Country Acquisition on OIBD/Asset**

t	OIBD/Asset				Common Support		Off Support	
	Matching Estimate	Bootstrap Std. Err.	Z-Stat	P> z	Untreated	Treated	Untreated	Treated
Difference in Differences combined with Gaussian kernel matching estimates								
0	-0.024	0.042	-0.56	0.575	2,963	127	0	2
1	0.042	0.050	0.84	0.401	2,736	118	0	2
2	0.368	0.337	1.09	0.275	2,525	108	0	2
3	0.055	0.050	1.09	0.274	2,344	93	0	3
4	<b>0.059</b>	0.033	1.79	0.074	2,157	85	0	3
5	0.025	0.024	1.07	0.287	2,003	83	0	3

## Impact of Developing Country Acquisition on Net Income/Asset

t	Net Income/Asset				Common Support		Off Support	
	Matching Estimate	Bootstrap Std. Err.	Z-Stat	P> z	Untreated	Treated	Untreated	Treated
Difference in Differences combined with Gaussian kernel matching estimates								
0	<b>-0.129</b>	0.076	-1.7	0.09	2,965	127	0	2
1	0.009	0.111	0.08	0.932	2,750	118	0	2
2	0.826	0.797	1.04	0.3	2,544	110	0	2
3	0.120	0.092	1.3	0.193	2,358	94	0	3
4	<b>0.100</b>	0.057	1.76	0.079	2,173	85	0	3
5	-0.003	0.052	-0.07	0.947	2,019	83	0	3

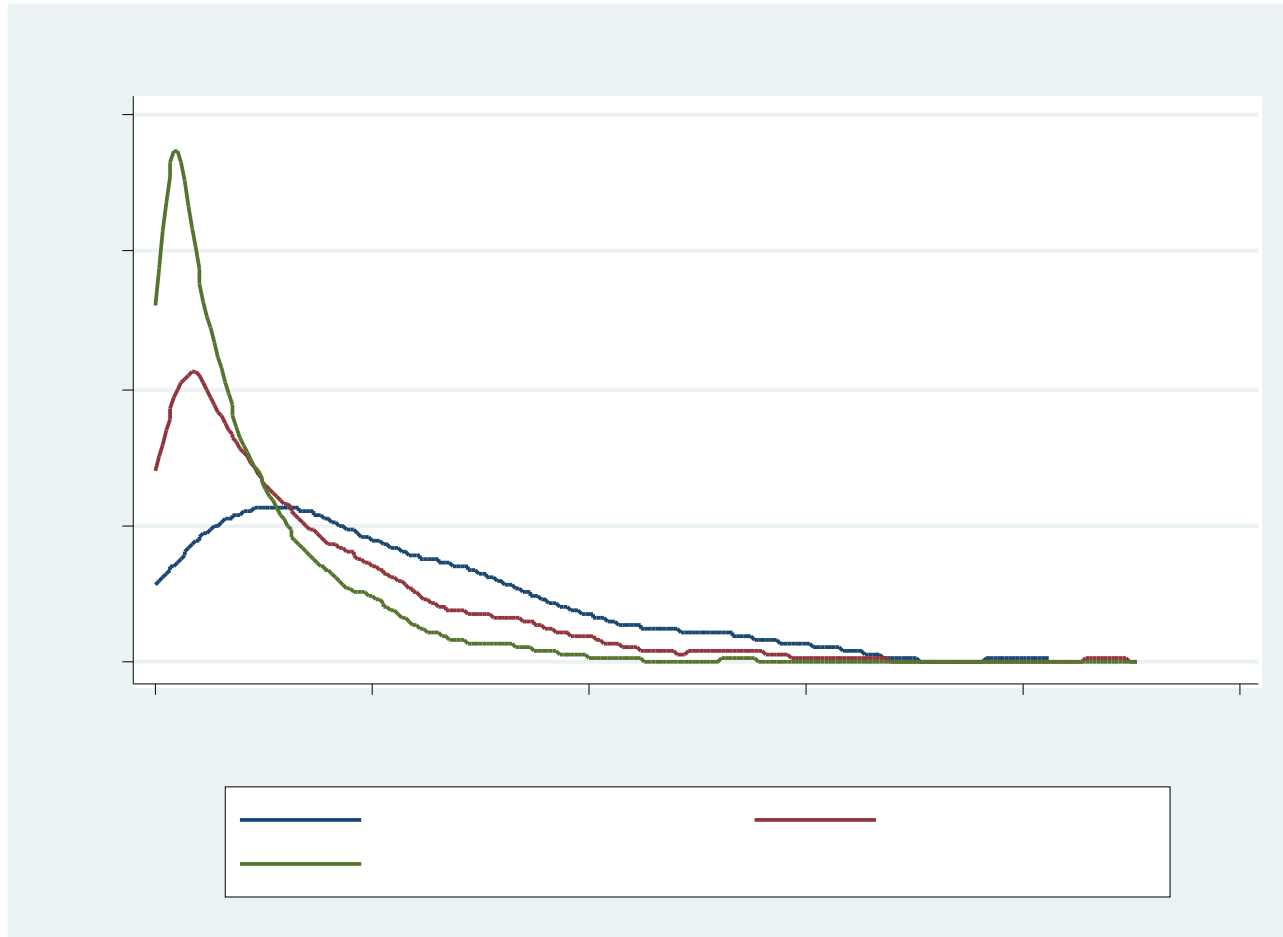
## Impact of Developing Country Acquisition on Capital Expenditure/Asset

t	Capital Expenditure/Asset				Common Support		Off Support	
	Matching Estimate	Bootstrap Std. Err.	Z-Stat	P> z	Untreated	Treated	Untreated	Treated
Difference in Differences combined with Gaussian kernel matching estimates								
0	0.003	0.004	0.75	0.454	2,951	126	0	2
1	0.001	0.004	0.21	0.834	2,729	116	0	2
2	0.002	0.006	0.44	0.663	2,517	106	0	2
3	<b>0.013</b>	0.007	2.06	0.039	2,333	89	0	3
4	0.007	0.008	0.86	0.392	2,151	83	0	3
5	0.004	0.008	0.47	0.635	2,003	81	0	3

## Impact of Developing Country Acquisition on log Employment

t	log Employment				Common Support		Off Support	
	Matching Estimate	Bootstrap Std. Err.	Z-Stat	P> z	Untreated	Treated	Untreated	Treated
Difference in Differences combined with Gaussian kernel matching estimates								
0	<b>-0.070</b>	0.041	-1.7	0.089	2,575	115	0	2
1	<b>-0.111</b>	0.053	-2.12	0.034	2,176	100	0	2
2	-0.071	0.058	-1.21	0.226	1,832	89	0	2
3	<b>-0.158</b>	0.109	-1.45	0.146	1,465	75	0	2
4	<b>-0.267</b>	0.161	-1.66	0.096	1,187	63	0	2
5	<b>-0.335</b>	0.178	-1.88	0.06	956	56	0	2

# Comparison between Propensity Scores before and after matching



# Conclusion

- After constructing appropriate controls, emerging market firm ownership leads to:
  - increase in
    - return on assets,
    - net income
    - capital expenditure, and
  - decrease in
    - employment
- Evidence of performance enhancement through restructuring
- Need more info on the acquirers for motivating rationale for undertaking foreign acquisitions

# Dynamic Acquisition Time Assignment

- “What is the effect of being acquired during time period  $t$  versus not being acquired up to and including time period  $t$ ?”
- assign five-year period intervals
- treatment and control groups must have a similar duration of domestic ownership
- divided up the entire time period into five smaller sub-intervals of 1985 – 1989, 1990 – 1994, 1995 – 1999, and 2000 – 2004
- Estimate Probit for each interval based on the year prior to the time interval



# Probit Estimation for Dynamic Time Assignment

Year Interval 1995 – 1999

Dependent Variable: Pr(Foreign Acquisition)		
	Coef.	Std. Err.
age	-0.0002349	0.0005434
age2	6.11E-07	0.0000108
OIBD	<b>-0.0000187</b>	0.0000103
log Debt	0.0010761	0.0012014
Cash	<b>0.000024</b>	9.49E-06
MktShareInd2	-1.154719	0.9000579
log Assets	-0.003799	0.0032489
Log Sales	0.005742	0.0034717
log Empl	0.000168	0.0025475
Cap Exp	0.0000137	7.09E-06
industry fixed effects		yes
year fixed effects		yes
region fixed effects		yes
Observations		2768
Pseudo R-squared		0.1046

All variables are lagged by one year

Impact of Developing Country Acquisition on OIBD/Asset

t	Matching Estimate	OIBD/Asset	Z-Stat	P> z	Common Support		Off Support	
		Bootstrap Std. Err.			Untreated	Treated	Untreated	Treated
Difference in Differences combined with Gaussian kernel matching estimates								
0	0.964	0.621	1.55	0.12	1,646	22	0	0
1	0.003	0.062	0.05	0.957	1,496	21	0	0
2	1.776	1.678	1.06	0.29	1,394	20	0	0

Impact of Developing Country Acquisition on Net Income/Asset

t	Net Income/Asset				Common Support		Off Support	
	Matching Estimate	Bootstrap Standard Err.	Z-Stat	P> z	Untreated	Treated	Untreated	Treated
Difference in Differences combined with Gaussian kernel matching estimates								
0	1.925	1.611	1.19	0.232	1,660	22	0	0
1	-0.102	0.152	-0.67	0.5	1,508	21	0	0
2	2.211	2.001	1.1	0.269	1,405	20	0	0

Impact of Developing Country Acquisition on Capital Investment/Asset

t	Capital Investment/Asset				Common Support		Off Support	
	Matching Estimate	Bootstrap Std. Err.	Z-Stat	P> z	Untreated	Treated	Untreated	Treated
0	0.002	0.019	0.08	0.933	1,635	21	0	0
1	0.000	0.019	-0.02	0.988	1,486	20	0	0
2	0.003	0.017	0.15	0.883	1,402	20	0	0

**Impact of Developing Country Acquisition on log Sales**

t	Matching Estimate	Log Sales Bootstrap Std. Err.	Z-Stat	P> z	Common Support		Off Support	
					Untreated	Treated	Untreated	Treated

Difference in Differences combined with Gaussian kernel matching estimates

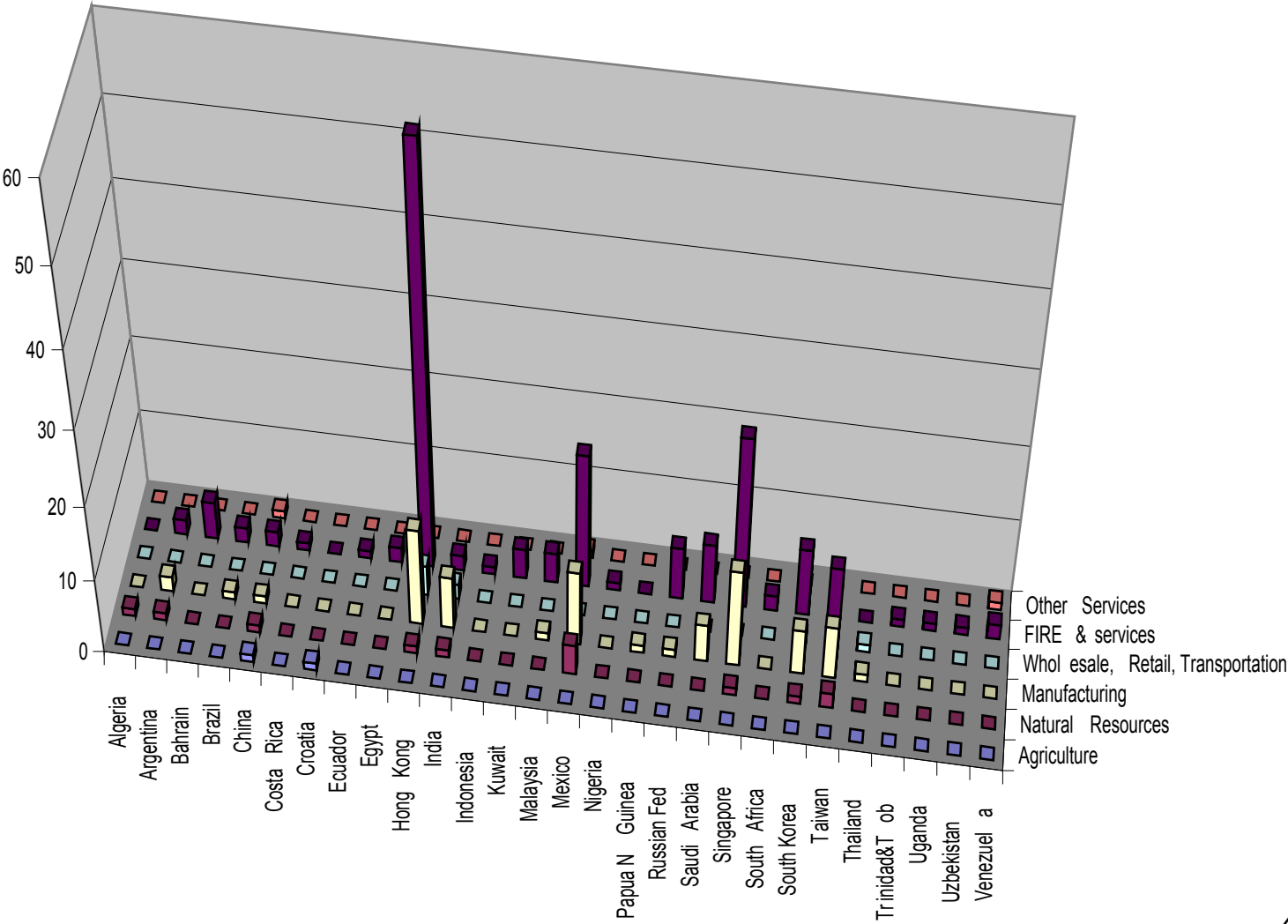
0	0.118	0.268	0.44	0.661	1,647	21	0	0
1	0.074	0.255	0.29	0.772	1,495	20	0	0
2	0.034	0.307	0.11	0.912	1,388	19	0	0

# Stock Market Return

Days	N	Mean Cumulate Abnormal Return	Precision Weighted CAAR	Positive: Negative	Patell Z	Portfolio Time- Series (CDA) t	Generalized Sign Z
(-20,+20)	214	10.82%	12.42%	141:73>>>	6.657***	4.782***	6.348***
(-3,+3)	214	8.02%	10.37%	141:73>>>	13.447***	8.578***	6.348***
(-1,+1)	214	8.17%	10.44%	158:56>>>	20.684***	13.350***	8.687***

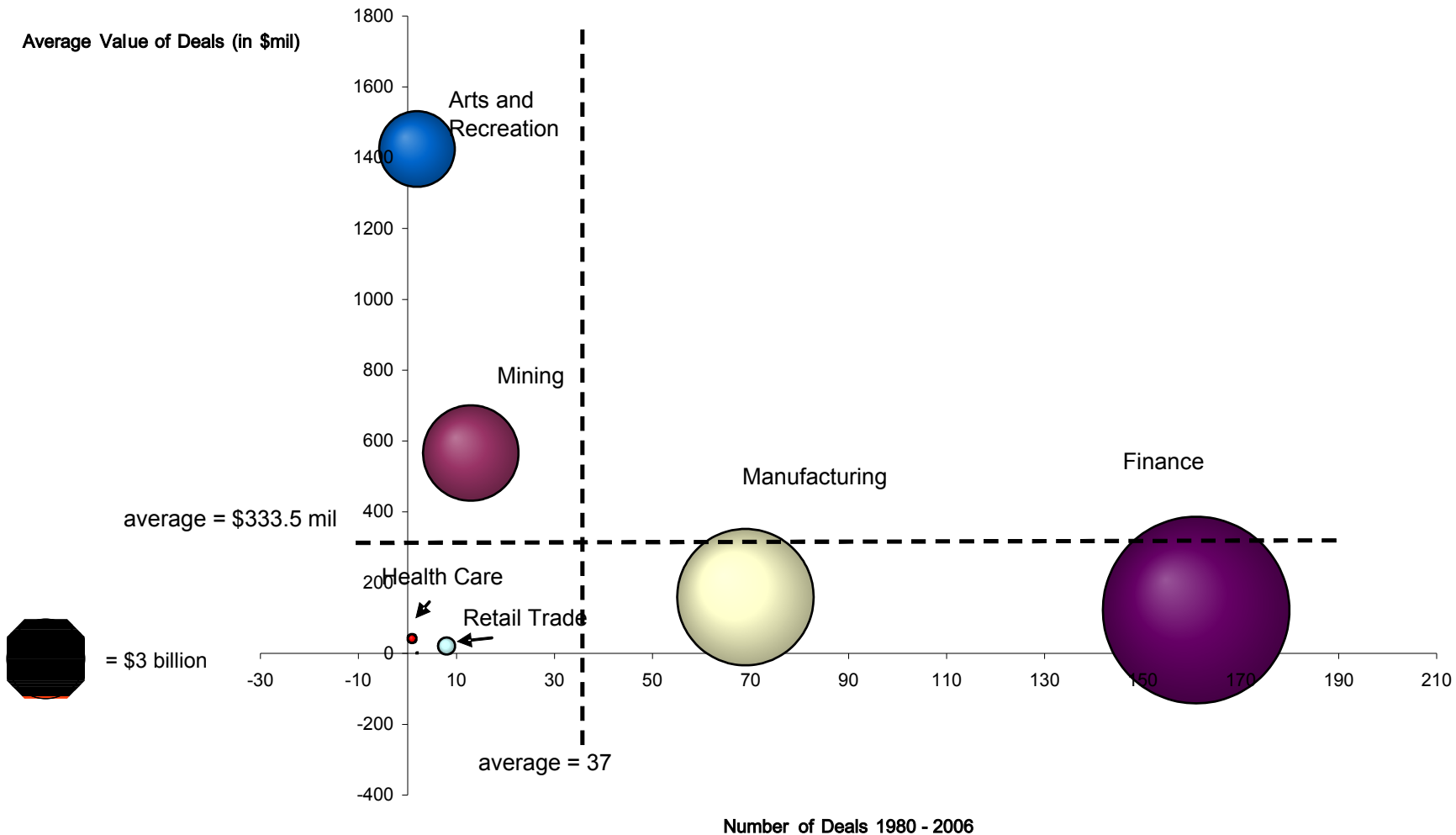
The symbols \$, \*, \*\*, and \*\*\* denote statistical significance at the 0.10, 0.05, 0.01 and 0.001 levels, respectively, using a 1-tail test. The symbols (< or >) etc. correspond to \$, \* and show the significance and direction of the generalized sign test.

### Decomposition of Acquirers by Country and Industry



# Number and Value of M&A deals by Acquirer Sector

Acquiror Industry Deal Value





# Evidence of Selection Bias

Three years prior to acquisition: (t=-3 to t=-1)

	Dependent Variable:				
	OIBD/Asset	log Sales	log Asset	Cap Exp/Asset	log Empl
D_ownership	-0.024 (0.02)	<b>0.798***</b> (0.11)	<b>0.735***</b> (0.11)	<b>-0.008+</b> (0.00)	<b>0.651***</b> (0.10)
industry fixed effect	yes	yes	yes	yes	yes
year fixed effect	yes	yes	yes	yes	yes
region fixed effect	yes	yes	yes	yes	yes
Observations	10394	10394	10394	10394	10394
R-squared	0.035	0.18	0.204	0.103	0.178

Standard errors in parentheses

+ significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%

## Impact of Developing Country Acquisition on OIBD/Asset

t	OIBD/Asset				Common Support	
	Estimate	Std. Err.	Z-Stat	P> z	Untreated	Treated
<b>Simple Difference in Differences</b>						
0	0.059	0.137	0.43	0.664	2,963	129
1	0.082	0.120	0.68	0.495	2,736	120
2	0.118	0.135	0.88	0.379	2,525	110
3	0.151	0.136	1.11	0.267	2,344	96
4	0.158	0.132	1.19	0.234	2,157	88
5	0.134	0.126	1.06	0.287	2,003	86

# Impact of Developing Country Acquisition on Net Income/Asset

t	Net Income/Asset				Common Support	
	Estimate	Bootstrap Std. Err.	Z-Stat	P> z	Untreated	Treated
Simple Difference in Differences						
0	-0.211	0.694	-0.3	0.761	2,965	129
1	-0.147	0.712	-0.21	0.837	2,750	120
2	-0.060	0.743	-0.08	0.936	2,544	112
3	-0.002	0.809	0	0.998	2,358	97
4	-0.030	0.875	-0.03	0.972	2,173	88
5	0.000	0.933	0	1	2,019	86

## Impact of Developing Country Acquisition on Capital Expenditure/Asset

t	Capital Expenditure/Asset				Common Support	
	Estimate	Bootstrap Std. Err.	Z-Stat	P> z	Untreated	Treated
Simple Difference in Differences						
0	-0.005	0.012	-0.43	0.67	2,951	128
1	-0.001	0.010	-0.1	0.917	2,729	118
2	-0.006	0.011	-0.59	0.558	2,517	108
3	0.000	0.012	0.02	0.982	2,333	92
4	-0.003	0.013	-0.24	0.814	2,151	86
5	-0.001	0.013	-0.08	0.938	2,003	84

## Impact of Developing Country Acquisition on log Employment

t	log Employment				Common Support	
	Estimate	Bootstrap Std. Err.	Z-Stat	P> z	Untreated	Treated
Simple Difference in Differences						
0	0.017	0.285	0.06	0.952	2,575	117
1	-0.007	0.297	-0.02	0.982	2,176	102
2	-0.086	0.307	-0.28	0.779	1,832	91
3	-0.253	0.330	-0.77	0.442	1,465	77
4	-0.213	0.346	-0.62	0.538	1,187	65
5	-0.011	0.349	-0.03	0.975	956	58

## Impact of Developing Country Acquisition on log Sales

t	Estimate	Log Sales Bootstrap			Common Support	
		Std. Err.	Z-Stat	P> z	Untreated	Treated
Simple Difference in Differences						
0	-0.012	0.314	-0.04	0.97	2,965	128
1	0.063	0.326	0.19	0.846	2,742	119
2	0.094	0.336	0.28	0.779	2,532	111
3	-0.060	0.363	-0.16	0.869	2,341	95
4	-0.196	0.377	-0.52	0.603	2,146	85
5	0.270	0.385	0.7	0.482	2,000	83

# Balancing Test

Variable	Sample	Mean		%Diff	%Reduc Diff	t-test	
		Treated	Control			t	p> t
age	Unmatched	25.361	24.346	8		0.85	0.393
	Matched	25.299	24.482	6.5	19.6	0.49	0.624
age2	Unmatched	799.09	754.33	6.6		0.69	0.493
	Matched	798.38	761.93	5.4	18.6	0.41	0.684
OIBD	Unmatched	67.84	269.23	-23		<b>-1.9</b>	0.058
	Matched	86.915	200.75	-13	43.5	-1.24	0.216
logDebt	Unmatched	2.9611	2.8235	4.6		0.47	0.641
	Matched	2.8945	2.9818	-2.9	36.5	-0.23	0.821
Cash	Unmatched	72.035	100.1	-5.6		-0.46	0.647
	Matched	46.736	75.322	-5.7	-1.8	-0.57	0.566
MktShareInd2	Unmatched	0.00165	0.00301	-13.5		-1.08	0.282
	Matched	0.00162	0.00245	-8.3	38.9	-0.79	0.429
logAssets	Unmatched	5.2667	4.9057	16.5		1.57	0.117
	Matched	5.2099	5.0939	5.3	67.9	0.43	0.667
LogSales	Unmatched	5.336	4.7549	25.4		<b>2.44</b>	0.015
	Matched	5.27	5.0045	11.6	54.3	0.95	0.343
logEmpl	Unmatched	0.32517	-0.2007	24		<b>2.42</b>	0.015
	Matched	0.28637	0.01578	12.3	48.5	0.97	0.331
CapExp	Unmatched	71.097	126.79	-11.9		-1.02	0.306
	Matched	71.167	119.79	-10.4	12.7	-0.83	0.409
Number of Firms		79	1,652				
Median Sdiff	Unmatched	12.70621					
	Matched	7.363901					

# Robustness Checks

- Dynamic Acquisition Time Assignment
- Alternative probit specification and covariates
- Alternative matching kernel and bandwidth parameter
- Subset of manufacturing firms