

Do local analysts know more? A cross-country study of the performance of local analysts and foreign analysts

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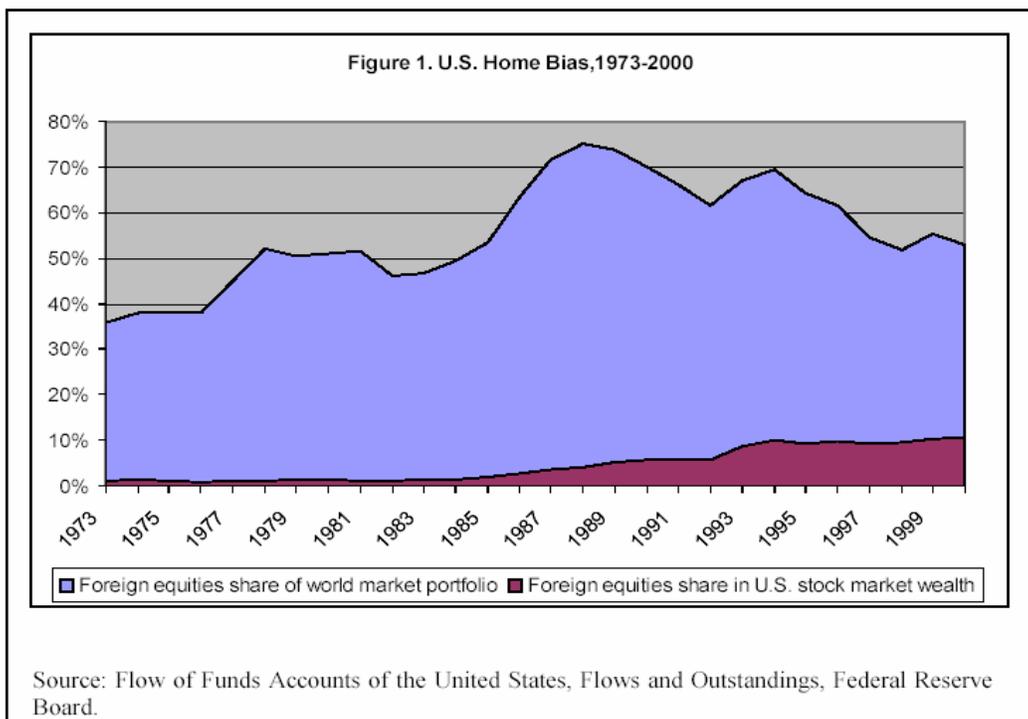
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Motivation

- One of the most stylized facts in the international finance is that investors overweight domestic securities in their portfolio investment.
 - Many studies document such home bias (see French and Poterba, 1991, Tesar and Werner, 1998, and Ahearne, Grier, and Warnock, 2004).
- The issue of home bias has been puzzling researchers for at least 30 years (Stulz, 2005).

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Home bias and information asymmetry

- Theory suggests that information advantage of local investors over foreign investors can partially explain the home bias.
- Mixed evidence based on investment performance approach.

Locals are better informed

- International markets
 - Brennan and Cao (1997)
 - Kang and Stulz (1997)
 - Choe, Kho, and Stulz (2005)
 - Dvorak (2005)
- Resident vs. non-resident in a domestic market
 - Coval and Moskowitz (1999, 2001)
 - Huberman (2001)
 - Ivković and Weisbrenner (2005)
 - But: Seasholes and Zhu (2005)

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Foreigners are better informed

- Grinblatt and Keloharju (2000)
- Seasholes (2000)
- Froot, O'Connell, and Seasholes (2001)
- Froot and Ramadorai (2001)

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Difficulty with investment performance approach

- Lack of high quality, high frequency trading data for a large sample of countries
- Difficulty in controlling for risks, asset pricing models

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A more direct approach

- If domestic and foreign analysts try to have the most precise forecast, then comparing analyst forecast precision provides a comparison of the quality of information available to domestic and foreign investors
- No need to use returns and asset pricing models
- Malloy (2004): analyst forecast is ideal for testing asymmetric information, agency costs, and herding.
- Data availability
 - I/B/E/S (First Call), Nelson's Directory of Investment Research, Zacks

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Performance of financial analysts

- Definitions: local, foreign and expatriate analysts
- Mixed and isolated evidence
 - Malloy (2005)
 - Bacmann and Bolliger (2001)
 - Orpurt (2004)
 - Bolliger (2004)
 - Chang (2004)

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Our contributions

- Measure the analyst local advantage for 32 countries
- Relate the advantage to firm- and country-level transparency & governance
 - Analyst local advantage negatively related to the quality of information
- Evaluate the relevance of information asymmetry for the home bias
 - Information asymmetry appears to be a common cause for the local analyst advantage and home bias

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Hypotheses

- H1: Distance affects analyst performance.
 - Local analysts provide more accurate earnings forecasts.
 - Local analysts have access to information because they are *on the spot*.
- H2: Analyst local advantage is more pronounced in a less transparent environment.
 - Firm-level
 - Country-level

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Data sources

- Standard & Poor's Transparency and Disclosure dataset
 - 894 non-U.S firms from 40 countries
 - Firm-level transparency and disclosure measure
- I/B/E/S international files
- Nelson's Directory of Investment Research
 - Volume 2004
 - Nearly 8,000 analysts from 752 research firms
 - 6,400 U.S companies and 7,000 non-U.S companies.
 - Hard-copy only
- Unique data on analyst locations
 - Local vs foreign
 - Pure local vs expatriate

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Sample criteria

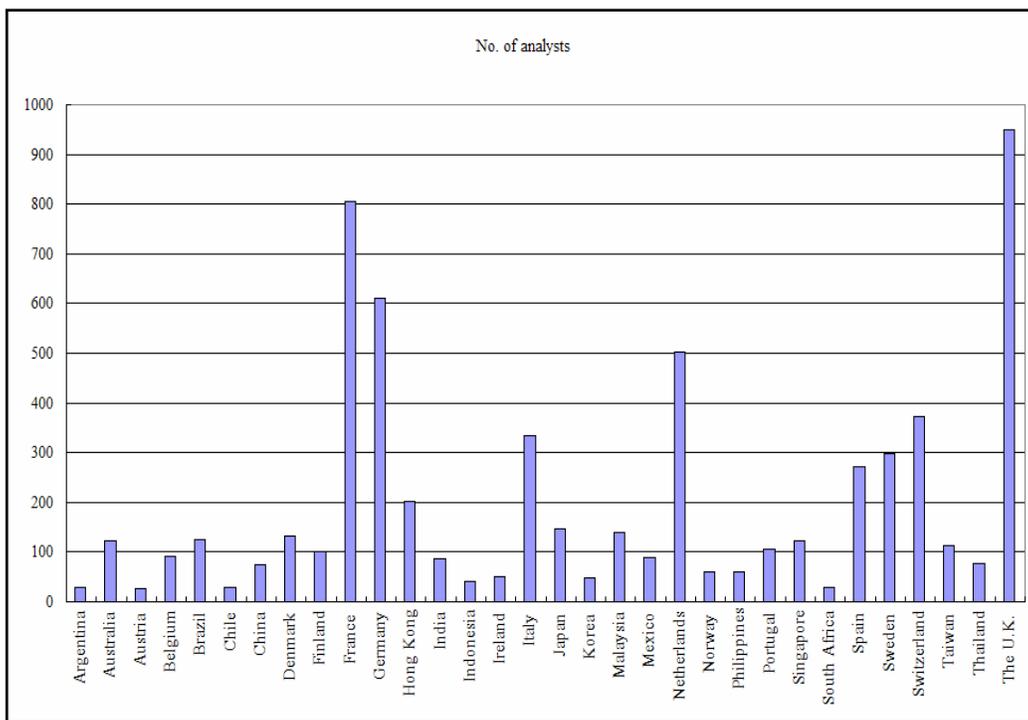
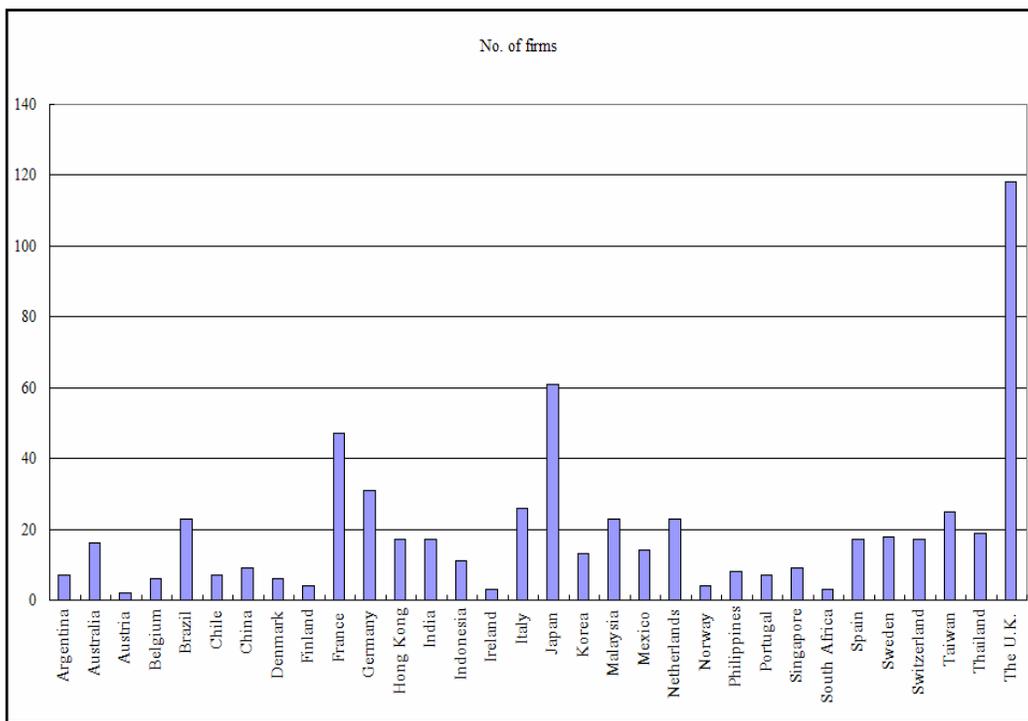
- Countries with more than 50 firms in I/B/E/S
- Firms followed by both local and foreign analysts for each year and for each firm, so that both groups appear for every firm-year
- Time period: 2001-2003
- Most recent earnings forecast for each analyst on each firm/year

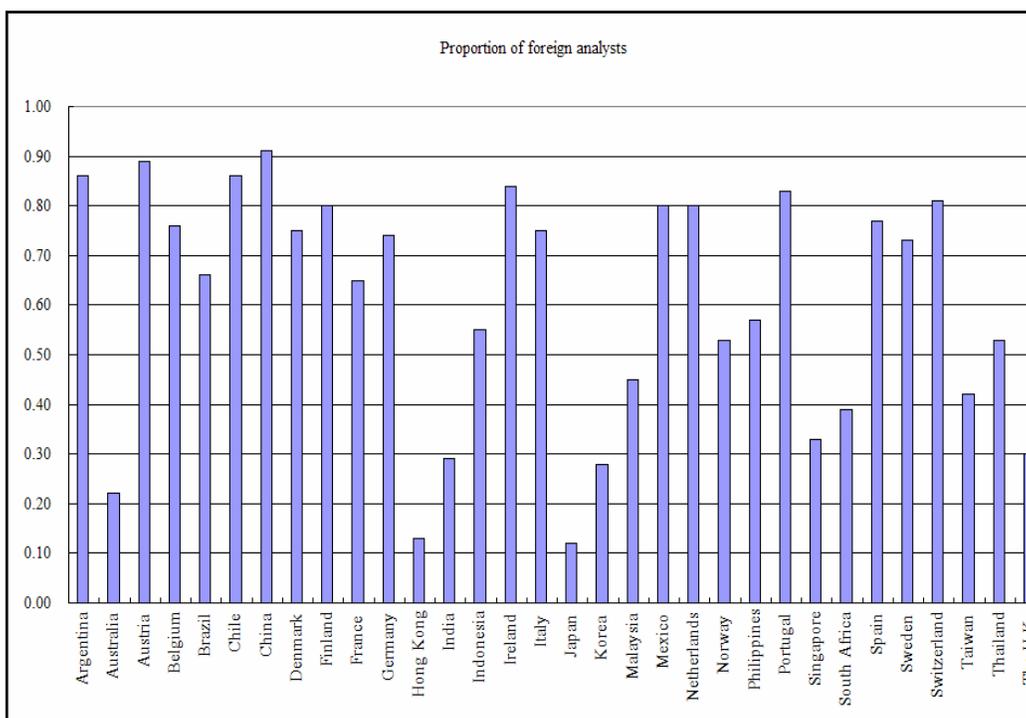
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Annual EPS forecast timeline



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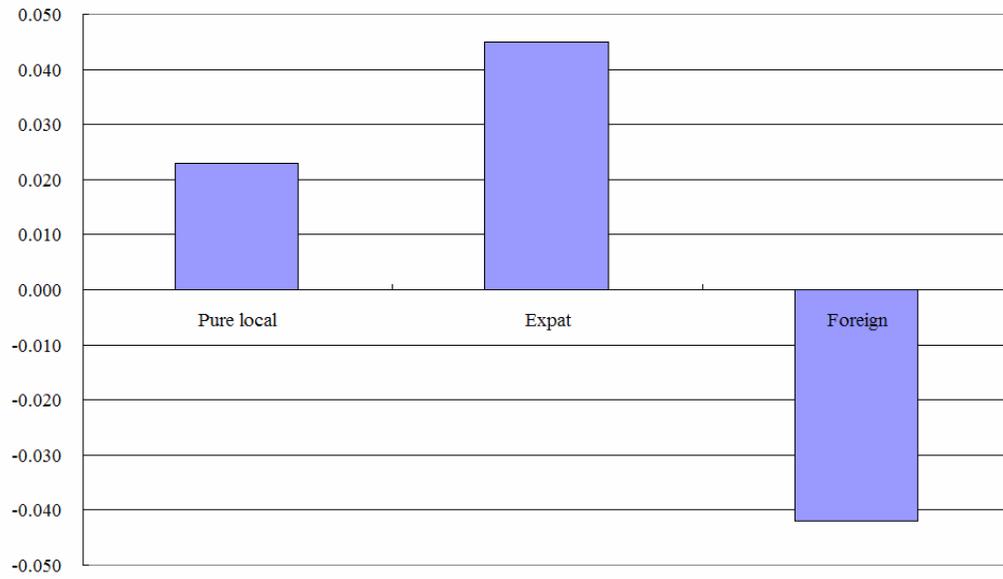


Measures of forecast accuracy

- Proportional mean price-scaled absolute forecast error
 - Forecast accuracy measure for analyst j for firm i at time t

$$= - (AFEP_{ijt} - \text{avg}AFEP_{jT}) / \text{avg}AFEP_{jT}$$
 - A positive value for this variable indicates that the absolute forecast error of analyst i for firm j 's fiscal year T is smaller than the average absolute forecast error of all of the forecasts for the same firm/year.
- We also investigate other accuracy measures.

Forecast accuracy - mean



Model: Regression with firm cluster

- Dependent variable
 - Forecast accuracy
- Independent variable
 - *Dummy for local analyst* (+)
 - Broker size (+)
 - Forecast horizon (-)
 - No. of industries covered (-)
 - Firm-specific experience (+)
 - Career experience (+)

Table 4: Local analyst advantage

Variables	(1)	(2)	(3)	(4)	(5)
<i>Dummy for local analysts</i>		0.046 (4.31)	0.043 (3.98)	0.086 (3.45)	
<i>Dummy for foreign analyst</i>				0.050 (1.95)	
<i>X dummy for regional analysts</i>					
<i>Dummy for pure local analysts</i>					0.045 (3.00)
<i>Dummy for Expatriate analysts</i>					0.041 (3.46)
Broker size	0.002 (0.36)	0.006 (1.00)	0.007 (1.23)	0.006 (1.09)	0.007 (1.27)
Forecast horizon	-0.571 (-15.58)	-0.568 (-15.50)	-0.570 (-15.55)	-0.570 (-15.55)	-0.570 (-15.57)
Number of industries covered	-0.002 (-0.80)	-0.000 (-0.24)	0.000 (0.05)	0.000 (0.04)	0.000 (0.05)
Firm-specific experience			0.008 (2.03)	0.008 (2.14)	0.008 (2.02)
Career experience			-0.010 (-3.85)	-0.010 (-3.86)	-0.010 (-3.85)
Constant	0.040 (11.43)	0.015 (2.36)	0.017 (2.67)	0.017 (-1.10)	0.017 (2.66)
No. of obs.	20,221	20,221	20,221	20,221	20,221
Adjusted R ²	0.041	0.042	0.043	0.043	0.043
Test: pure local=expatriate					
F-statistic					0.08
(p-value)					(0.78)

Table 5: Sub-samples by forecast horizon and year

Variables	Horizon		Year		
	0	1	2001	2002	2003
<i>Dummy for local analysts</i>	0.071 (2.78)	0.034 (2.76)	0.063 (3.39)	0.029 (1.63)	0.034 (1.83)
Broker size	-0.004 (-0.32)	0.009 (1.42)	0.002 (0.18)	0.009 (0.84)	0.010 (1.03)
Forecast horizon	-0.419 (-3.29)	-0.673 (-17.24)	-0.748 (-12.70)	-0.483 (-8.47)	-0.472 (-8.05)
Number of industries covered	-0.003 (-0.60)	0.000 (0.17)	0.001 (0.45)	0.003 (0.82)	-0.004 (-1.18)
Firm-specific experience	0.010 (1.40)	0.007 (1.58)	0.016 (2.42)	0.005 (0.81)	0.005 (0.78)
Career experience	-0.010 (-2.13)	-0.009 (-3.39)	-0.012 (-2.64)	-0.009 (-1.86)	-0.009 (-2.41)
Constant	-0.031 (-0.88)	0.049 (6.00)	0.007 (0.62)	0.029 (2.35)	0.017 (1.56)
No. of obs	4,528	15,693	6,598	6,507	7,116
Adjusted R ²	0.006	0.055	0.074	0.033	0.026

Table 5 - Continued

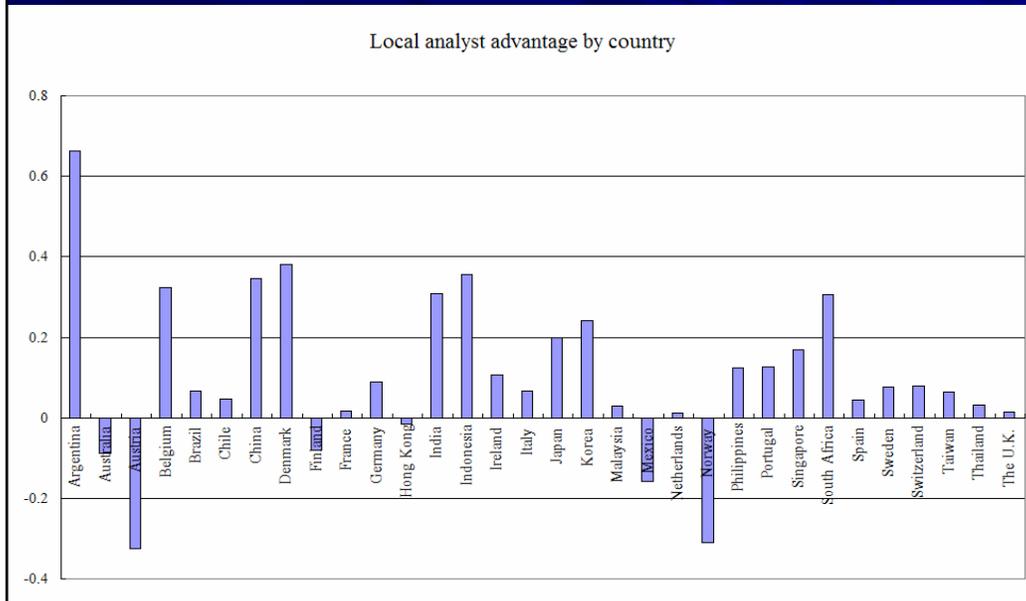


Table 6: Does firm-level transparency matter?

■ Independent variable

- Dummy for local analyst (+)
- *Dummy for transparency (+)*
- *Dummy for local analyst x dummy for transparency (-)*
- Broker size (+)
- Forecast horizon (-)
- No. of industries covered (-)
- Firm-specific experience (+)
- Career experience (+)

Table 6: Firm-level transparency

Variables	(1)	(2)	(3)
<i>Dummy for local analysts (a)</i>	0.064 (3.68)	0.046 (3.08)	0.062 (4.20)
<i>Dummy for transparency (b)</i>	0.019 (1.38)		
<i>(a) * (b)</i>	-0.038 (-1.73)		
<i>Dummy for firm size (c)</i>		0.030 (2.20)	
<i>(a) *(c)</i>		-0.004 (-0.17)	
<i>Dummy for ADR firm (d)</i>			0.025 (1.92)
<i>(a)*(d)</i>			-0.036 (-1.64)

Table 7. Do country characteristics matter?

- Interaction of local analyst dummy with
 - English language (-)
 - Economic and financial development (?)
 - Ownership concentration (+)
 - Presence of active institutional investors (-)
 - Protection of investor rights (?)
 - Quality of disclosure (-)
 - Informational efficiency of capital markets (-)

Table 7: Analyst local advantage and country characteristics

Model	Country characteristics	Local dummy	Country Characteristic variable	Local dummy x Country Characteristic variable	Number of observations	Adj. R ²
(1)	English language	0.058 (4.16)	-0.009 (-0.48)	-0.026 (-0.98)	20,221	0.043
(2)	GDP per capita	0.069 (3.47)	0.033 (2.52)	-0.037 (-1.54)	19,741	0.038
(3)	Emerging market	0.065 (2.85)	-0.023 (-1.48)	0.026 (1.00)	20,221	0.043
(4)	Equity market	0.062 (3.23)	0.014 (0.97)	-0.032 (-1.30)	19,175	0.043
(5)	State ownership	0.024 (1.50)	-0.011 (-0.77)	0.040 (1.60)	15,110	0.044
(6)	Foreign bank ownership	0.080 (3.86)	0.006 (0.33)	-0.034 (-1.03)	8,785	0.050
(7)	Ownership concentration	0.027 (1.85)	-0.016 (-1.20)	0.045 (2.02)	20,013	0.043
(8)	Pooled investment	0.112 (4.22)	0.048 (3.39)	-0.098 (-3.22)	16,141	0.028

Table 7 - continued

Model	Country characteristics	Local dummy	Country Characteristic variable	Local dummy x Country Characteristic variable	Number of observations	Adj. R ²
(9)	Legal origin	0.032 (1.61)	0.007 (0.41)	0.029 (1.14)	20,221	0.043
(10)	Antidirector rights	0.053 (3.26)	-0.06 (-1.60)	-0.002 (-0.10)	20,013	0.043
(11)	Property rights	0.068 (3.50)	0.032 (2.36)	-0.036 (-1.52)	20,013	0.043
(12)	Public enforcement	0.066 (3.72)	-0.011 (-0.81)	-0.027 (-1.15)	20,013	0.043
(13)	Class action	0.075 (4.81)	0.011 (0.82)	-0.053 (-2.36)	20,013	0.043
(14)	Insider trading enforcement	0.058 (2.58)	0.022 (1.55)	-0.023 (-0.89)	19,854	0.043
(15)	Earnings management	0.017 (1.09)	-0.023 (-1.60)	0.068 (2.97)	19,175	0.044
(16)	CIFAR	0.081 (4.90)	0.026 (1.94)	-0.061 (-2.72)	19,854	0.043
(17)	R ² _Morck	0.026 (1.89)	-0.043 (-2.96)	0.056 (2.41)	18,746	0.043

Foreign investors and analyst local advantage

- Foreign investors' demand for analyst services increases when they become more interested in a country
- Greater supply of analyst services when foreign investors are more interested in a country and hold more equity from that country.
- If analysts become more accurate when the demand for their services increases (more resources), one would expect the analyst local advantage to fall as the portfolio share of foreign investors in a country increases.

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Proxies of demand for analyst services

- US holdings
 - US investors' equity and debt holdings of foreign country j / foreign country j 's GDP
- US flows
 - US investors' equity and debt trading values of foreign country j / foreign country j 's GDP
- US equity
 - US investors' equity holdings of foreign country j / foreign country j 's equity market capitalization
- US portfolio
 - US investors' equity holdings of foreign country j / US investors' total equity holdings

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Table 8 Foreign investors and local analyst advantage

Model	Country characteristics that proxy for foreign investment	Local dummy	Country Characteristic variable	Local dummy x Country Characteristic variable	Number of observations	Adj. R ²
(1)	US holdings	0.097 (5.54)	0.054 (3.93)	-0.078 (-3.49)	20,221	0.044
(2)	US flows	0.085 (4.21)	0.042 (3.15)	-0.057 (-2.38)	19,741	0.039
(3)	US equity	0.079 (4.65)	0.001 (2.74)	-0.002 (-2.77)	20,221	0.043
(4)	US portfolio	0.071 (4.65)	0.001 (0.73)	-0.003 (-2.07)	20,221	0.043

Information asymmetry and analyst local advantage

■ Information asymmetry → local analyst advantage?

- Less interest from foreign investors results in less demand for foreign analyst services, which results in higher local advantage. In this case, analyst local advantage has nothing to do directly with information asymmetry or home bias.
- Information asymmetries that make local analysts better informed and foreign investors less well informed can, at the same time, reduce the portfolio share of a country in the portfolio of foreign investors and increase the analyst local advantage. In this case, information asymmetry is a common cause for the analyst local advantage and home bias.

Home bias and analyst local advantage

- Home bias for a foreign country j =
(market cap of country j / world market cap) –
(US investors' equity holdings of country j / US
investors' total equity holdings)
- US portfolio share = (WORLD RATIO – DIFF)

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Home bias and analyst local advantage

- Keeping the home bias component constant
- An increase in the WORLD RATIO variable
→ increase in the demand for analyst services by
foreign investors → decrease in the analyst local
advantage *if the causation runs from the U.S.
investor holdings to analyst local advantage.*

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Home bias and analyst local advantage

Model	Country characteristics that proxy for foreign investment	Local dummy	Country Characteristic variable	Local dummy x Country Characteristic variable	Number of observations	Adj. R ²
(5)	WORLD RATIO	0.067 (4.28)	0.001 (0.09)	-0.002 (-1.53)	20,221	0.043
(6)	DIFF (WORLD RATIO - US portfolio)	0.048 (4.46)	-0.011 (-2.67)	0.019 (3.05)	20,221	0.044
(7)	WORLD RATIO	0.065 (4.10)	-0.001 (-0.36)	-0.001 (-0.91)	20,221	0.044
	DIFF		-0.011 (-2.67)	0.016 (2.45)		

Cross-sectional regression

US portfolio share_j

$$= 0.333 + 0.967 \text{ WORLD RATIO}_j - 2.240 \text{ Local advantage}_j$$

(0.287) (0.000) (0.074)

Local analyst advantage by country

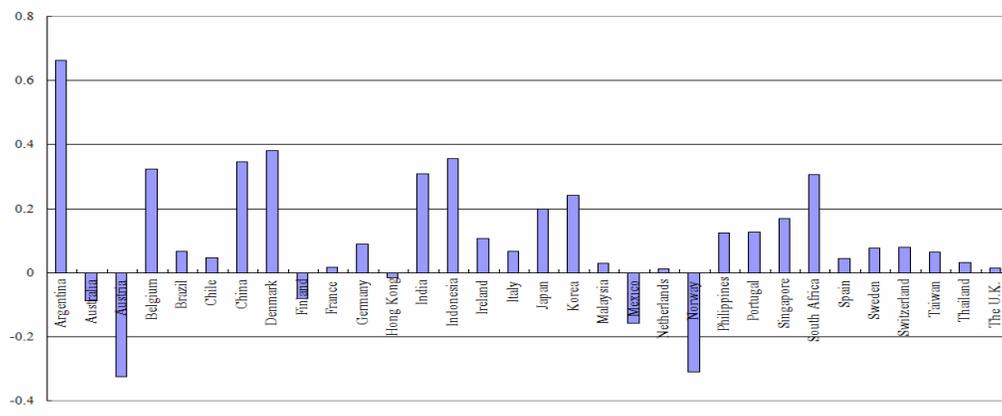


Table 9: Robustness tests

- Alternative measures of forecast accuracy
- Extend the sample to include firms that are followed by only one type of analysts.
- Extend the sample to include all analyst forecasts during our sample period.
- Add additional control variables that might be related to accuracy.

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Summary and conclusion

- There is a significant analyst local advantage.
- The analyst local advantage is strong in countries where disclosures are weaker, where institutional investors are less important, and where share ownership is more concentrated. It is also strong in countries that are underweighted in U.S. portfolios.
- Information asymmetry appears a common cause for the analyst local advantage and home bias.

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Nelson's Directory: examples

Credit Suisse First Boston Corporation
 11 Madison Avenue
 New York, NY 10010-3629
 www.csfb.com
 Type of organization: *Investment Bank/Broker*

Key Executives:

Equity:
 Brady Dougan..... Global Head/Equities
 Alfred Jackson..... Head of Global Equity Research

Research Services Offered:
 Equity Research:
Company Research, Fundamental Research, IPOs, Industry Research, Bankruptcies/Distressed Issues

Analysts/Research Professionals:

Equity Analysts:
 Matt Adams (*Hong Kong*)..... Internet - Digital Media
 Ottavio Adoriso (*London*)..... Telecoms-Alternative Carriers
 Matthew Akman (*Toronto*)..... Pipeline & Utilities
 Walter Altherr (*Tokyo*)..... Financial Services: Banks
 David Anstey (*Sydney*)..... Smaller Companies
 Gary Baiter (*)..... Specialty Hardlines Retailing
 Shane Bannan (*Sydney*)..... Generalist
 James D. Bantis (*Toronto*)..... Banks
 Jay Chang (*Hong Kong*)..... Telecoms (China)

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