Fund manager skill in an era of globalization: Offshore concentration and fund performance

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1.Introduction

Background：Globalization and the rise of multinational firms.

- As of 2017, 43.6% of the revenue earned by S&P 500 companies came from foreign countries.
- The increasing level of operational complexity presents an unprecedented challenge for investors to analyze and value these firms.

1.Introduction

Motivation

- greater geographic distance between investors and firms' operations increases the complexity of collecting and processing information about these firms.

- sophisticated investors with superior information in these overseas markets can take advantage of such opportunities. (e.g., money managers with foreign roots in certain regions)

1.Introduction

Motivation

- theoretical studies suggest that it is optimal for fund managers who have information advantages in assets with exposure to certain regions to further specialize these assets to earn higher returns.

- It is necessary to examine whether some fund managers **create value by concentrating their portfolios in firms exposed to overseas markets** where they presumably have an information advantage.

1.Introduction

Questions and Solutions

- How to construct the offshore concentration measure?
  - Using textual analysis to build OCI from 10-K.

- Whether and how OCI can affect fund performance.
  - portfolio sort and FM regression.
  - robustness test.

1.Introduction

Questions and Solutions

- Is this phenomenon caused by stock anomalies instead of fund skills?
  - ➢ portfolio sort at the equity level.

- What’s the source of this advantage?
- Whether the fund manager chooses stocks or national fortune?
  - ➢ Find that whether fund managers have timing behaviors.

1.Introduction

Contributions

- Add to the literature regarding the source of managers' ability to earn abnormal returns, and uncovers an important source of fund manager skill.

- Supports the predictions of theoretical models that asymmetric information can lead to disparate returns among market participants.

- Contributes to the literature on active fund management.

- Highlights the important implications of US firms' global expansion on mutual fund performance.

2.Data

- Monthly fund returns and characteristics from the CRSP.
- Mutual fund holdings data from Thomson-Reuters.
- Focus on actively-managed domestic equity mutual funds.
- Remove funds with less than 10 stocks or total net assets of less than $15 million.
- Remove the first two years of return data.

2.Data

Variables: Offshore concentration index (OCI)

- Focus on US firms' sales exposure in foreign markets.
- Using textual analysis to extract mentions of nations from each firm's 10-K filings.
- Pinpoint foreign nations stated in a firm's 10-K filling, and examine **25 neighboring words** of each country mention to infer the nature of related offshore activities.
- If the 25-word window centers contains **"sell", "customer", "export",** the country is then classified as one of the firm's offshore sales destinations.

2.Data

Variables: Offshore concentration index (OCI)

- Identify 177 foreign countries and capture the importance of each country in a firm's overseas sales network by C_i.

$$C_i = \left(C_{i,1}, C_{i,2}, \ldots, C_{i,k}, \ldots, C_{i,177}\right)',$$

- $C_{i,k}$ is the share of firm i 's mentioning of output country k to the total mentions of all 177 output countries.
- Multiply a firm's dollar value of total foreign sales(Fsales).

2.Data

Variables: Offshore concentration index (OCI)

- Aggregate the sales to each foreign country across all firms in a mutual fund portfolio.

$$\Theta_{P,k}(\omega) = \frac{\sum_{i \in P} \omega_i \left(Fsales_i \times C_{i,k} \right)}{\sum_{i \in P} \omega_i (Total\ sales_i)},$$

- fund P ’s total foreign sales ratio in country k.
- Similar to ICI(industry concentration index) , the OCI is defined as:

$$OCI_P = \sum_{k=1}^{177} \left(\Theta_{P,k} - \bar{\Theta}_k \right)^2,$$

- Benchmark Θ_k is the corresponding value of the market portfolio.

2.Data

Summary statistics

Panel A. Summary statistics

	N	Mean	St. Dev.	1st Pctl.	25th Pctl.	Median	75th Pctl.	99th Pctl.
OCI (× 100)	257,120	0.367	0.595	0.014	0.128	0.264	0.437	2.424
ICI	236,262	0.048	0.046	0.004	0.021	0.038	0.059	0.223
AS	195,171	0.799	0.155	0.380	0.703	0.831	0.948	0.991
R^2	256,598	0.913	0.073	0.665	0.896	0.931	0.958	0.990
TNA ($ millions)	257,120	1083.1	2241.5	17.0	92.3	295.3	963.8	14,000.8
Age (years)	257,120	13.1	9.8	2.4	6.9	10.6	15.7	51.5
Turnover (%)	257,120	116	334	4	37	66	110	1444
Expenses (%)	257,120	1.22	0.36	0.33	0.98	1.20	1.45	1.97
$\sigma_{t-12:t-1}$(%)	257,120	4.90	1.26	2.65	4.04	4.67	5.60	8.58
$Flow_{t-12:t-1}$ (%)	257,120	9.82	49.30	−59.89	−15.92	−3.67	16.78	193.80
CS (%)	257,120	−0.003	0.781	−1.822	−0.461	−0.019	0.427	2.143
α^{4F} (%)	256,805	−0.080	1.325	−3.152	−0.887	−0.103	0.685	3.441
Ret (%)	257,120	0.666	2.126	−4.159	−0.733	0.622	2.014	5.870

	OCI
ICI	0.269
AS	0.379
R^2	−0.237

- The average DGTW characteristic- selectivity (CS) measure of our sample funds is close to zero.
- correlation matrix shows that OCI is related to ICI, AS(active share measure), R2, but the relationship is moderate.

2.Data

OCI persistence and fund characteristics

	(1)	(2)	(3)	(4)	(5)
ICI_{q-1}		3.111***			2.139***
		(9.79)			(5.77)
AS_{q-1}			1.213***		1.009***
			(8.12)		(4.70)
R^2_{q-1}				−1.504***	−0.865***
				(−9.95)	(−3.58)

- The relationship between OCI and ICI, AS, R2 is

	(1)	(2)	(3)	(4)
OCI_{q-1}	0.795***			
	(28.62)			
OCI_{q-2}		0.652***		
		(17.98)		
OCI_{q-3}			0.565***	
			(13.82)	
OCI_{q-4}				0.483***
				(12.03)
Intercept	0.076***	0.118***	0.145***	0.172***
	(4.78)	(8.30)	(10.57)	(10.65)
N	77,360	80,409	75,834	77,628
N of quarters	78	77	76	75
R^2	0.625	0.431	0.326	0.241

3. Empirical results

OCI and fund performance: portfolio evidence

	Panel A. Equal Weighted				Panel B. TNA-Weighted			
	R^{Net}	R^{Gross}	$\alpha^{4F, Net}$	$\alpha^{4F, Gross}$	R^{Net}	R^{Gross}	$\alpha^{4F, Net}$	$\alpha^{4F, Gross}$
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Differences:							
D10 – D1	0.352***	0.382***	0.246***	0.276***	0.262***	0.275***	0.194***	0.207***
	(2.78)	(3.03)	(4.20)	(4.70)	(2.63)	(2.77)	(2.66)	(2.85)
D10 – D^{Middle}	0.222***	0.237***	0.217***	0.232***	0.172***	0.176***	0.178***	0.182***
	(3.78)	(4.09)	(4.99)	(5.36)	(2.94)	(3.01)	(3.08)	(3.14)
D^{Middle} – D1	0.130	0.144	0.030	0.044	0.090	0.100	0.015	0.025
	(1.45)	(1.60)	(0.65)	(0.97)	(1.05)	(1.16)	(0.28)	(0.46)
D10	0.887***	1.023***	0.136**	0.274***	0.797**	0.895***	0.069	0.167**
	(2.67)	(3.09)	(2.21)	(4.52)	(2.39)	(2.69)	(0.92)	(2.23)
D9	0.827**	0.950***	0.057	0.181***	0.799**	0.897***	0.041	0.139*
	(2.58)	(2.97)	(0.85)	(2.71)	(2.43)	(2.72)	(0.54)	(1.83)
D2	0.527*	0.637**	−0.132***	−0.020	0.584**	0.671**	−0.069	0.017
	(1.87)	(2.27)	(−4.48)	(−0.69)	(1.97)	(2.27)	(−1.62)	(0.41)
D1	0.535*	0.642**	−0.111***	−0.002	0.535*	0.619**	−0.125***	−0.040
	(1.91)	(2.30)	(−4.49)	(−0.07)	(1.84)	(2.14)	(−3.40)	(−1.09)

- funds with concentrated offshore holdings have significantly better future performance.

3. Empirical results

OCI and fund performance: FM regressions

	Panel A. α_t^{4F}			Panel B. CS_t		
	(1)	(2)	(3)	(4)	(5)	(6)
OCI_{t-1}	0.094***	0.108***	0.122***	0.044***	0.057***	0.054***
	(4.82)	(6.65)	(7.13)	(4.04)	(6.13)	(6.12)
$Log(TNA)_{t-1}$		0.000	−0.001		−0.004**	−0.004**
		(0.08)	(−0.25)		(−1.98)	(−2.01)
$Log(Age)_{t-1}$		−0.001	−0.001		0.009**	0.008**
		(−0.14)	(−0.13)		(2.34)	(2.35)
$Turnover_{t-1}$		0.003	0.003		0.000	0.001
		(0.27)	(0.29)		(0.04)	(0.30)
$Expenses_{t-1}$		−4.309***	−4.421***		−0.157	−0.155
		(−2.99)	(−3.34)		(−0.25)	(−0.27)
$\sigma_{t-12:t-1}$		−1.813	−3.040*		−0.287	−0.372
		(−0.95)	(−1.75)		(−0.27)	(−0.38)
$Ret_{t-12:t-1}$		1.009***	1.262***		0.215*	0.195**
		(5.20)	(7.13)		(1.83)	(2.15)
$Flow_{t-12:t-1}$		0.046***	0.044***		0.002	0.003
		(3.18)	(3.41)		(0.30)	(0.45)
Intercept	−0.114***	−0.100	−0.074	−0.020	−0.071	−0.043
	(−4.51)	(−0.93)	(−0.77)	(−1.28)	(−1.20)	(−0.74)
Style FE	No	No	Yes	No	No	Yes
N	268,291	256,805	256,805	270,856	257,120	257,120
N of Months	237	237	237	237	237	237
R^2	0.008	0.102	0.159	0.005	0.064	0.093

3. Empirical results

Robustness test: controlling ICI, AS, R2

	Panel A. α_t^{4F}				Panel B. CS_t			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
OCI_{t-1}	0.115***	0.120***	0.112***	0.113***	0.050***	0.062***	0.045***	0.053***
	(6.57)	(5.91)	(7.08)	(6.08)	(5.77)	(6.00)	(5.21)	(5.31)
ICI_{t-1}	0.529**			0.246	0.190*			0.154
	(2.37)			(0.86)	(1.72)			(1.21)
AS_{t-1}		0.338***		0.266**		0.051		0.001
		(2.76)		(1.99)		(1.31)		(0.02)
R^2_{t-1}			−0.389***	−0.201			−0.249***	−0.254***
			(−2.77)	(−1.12)			(−3.97)	(−3.15)
Fund Characteristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Style FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	236,262	195,171	256,598	195,000	236,550	195,350	256,660	194,976
N of Months	219	186	237	186	219	186	237	186
R^2	0.163	0.173	0.166	0.184	0.094	0.096	0.096	0.102

- OCI-fund performance relation is not a manifestation of the relation between fund performance and extant manager activeness measures.

3. Empirical results

Is this phenomenon caused by stock anomalies instead of fund skills? – Stock level

	Equal-Weighted				Value-Weighted			
	R_e	α^{CAPM}	α^{3F}	α^{4F}	R_e	α^{CAPM}	α^{3F}	α^{4F}
	Difference:							
D10 – D1	−0.139 (−1.01)	−0.136 (−0.90)	−0.124 (−0.98)	−0.112 (−0.92)	−0.056 (−0.30)	−0.199 (−1.08)	−0.143 (−0.78)	−0.081 (−0.45)
				(1)				(2)
OC_{t-1}^{Stock}				−0.009 (−1.34)				−0.009 (−1.27)

- The results are not merely a manifestation of the underlying stocks' foreign sales concentration anomaly.

3. Empirical results

A source of this phenomenon: managers' foreign ethnic background

- Using the setting of portfolio manager turnovers to investigate whether funds managed by managers of foreign ethnicity exhibit a higher OCI.

	Both Solo- and Team Managed Funds			Only Solo-Managed Funds		
	Average OCI		Differences	Average OCI		Differences
	(1) Year t	(2) Year $t+1$	(3) Year $t+1-t$	(4) Year t	(5) Year $t+1$	(6) Year $t+1-t$
Panel A. Foreign Manager Leaves						
Foreign Manager Departure (1 to 0)	0.282	0.252	−0.029*** (−2.69)	0.378	0.329	−0.049* (−1.79)
No Change in Foreign Manager Status (1 to 1)	0.303	0.306	0.003 (0.43)	0.359	0.378	0.019 (1.05)
Differences	−0.021 (−1.33)	−0.054*** (−3.26)	−0.032** (−2.52)	0.019 (1.03)	−0.049** (−2.01)	−0.068** (−2.27)
Panel B. Foreign Manager Joins						
Foreign Manager Arrival (0 to 1)	0.293	0.314	0.020** (2.01)	0.304***	0.373***	0.069** (2.15)
No Change in Domestic Manager Status (0 to 0)	0.297	0.295	−0.002 (−0.84)	0.301***	0.303***	0.002 (0.22)
Differences	−0.004 (−0.35)	0.018 (1.63)	0.022** (2.15)	0.003 (0.12)	0.070** (2.31)	0.067** (2.21)

3. Empirical results

A source of this phenomenon: managers' foreign ethnic background

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			(0.43)			(1.05)
Differences	−0.021	−0.054***	−0.032**	0.019	−0.049**	−0.068**
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			(−0.84)			(0.22)
Differences	−0.004	0.018	0.022**	0.003	0.070**	0.067**
	(−0.35)	(1.63)	(2.15)	(0.12)	(2.31)	(2.21)

3. Empirical results

A source of this phenomenon: managers' foreign ethnic background

- Obtain information on whether a foreign manager is likely a **first-generation** immigrant to the US.
- Using an indicator variable that is set equal to one if a manager obtains an undergraduate degree from a foreign nation.
- Test whether funds' OCI in a given region reflects the managers' **region of foreign origin**.
- Decompose OCI into seven different geographic regions based on the foreign origin of the managers.

3. Empirical results

A source of this phenomenon: managers' foreign ethnic background

- A first-generation foreign manager is more likely to have a high OCI.

	Top OCI decile dummy			Top OCI decile dummy		
	Logit			OLS		
	(1)	(2)	(3)	(4)	(5)	(6)
Foreign	0.130***	0.195***	0.216***	0.020***	0.029***	0.030***
	(6.26)	(8.36)	(8.18)	(6.16)	(8.00)	(7.45)
Foreign × First Generation		0.133***	0.095**		0.025***	0.019***
		(2.96)	(2.09)		(3.43)	(2.60)
Foreign × Solo-manager			0.161***			0.023***
			(6.80)			(6.47)
Solo-manager			0.094*			0.021***
			(1.82)			(2.60)
Fund Characteristics	Yes	Yes	Yes	Yes	Yes	Yes
Style FE	Yes	Yes	Yes	Yes	Yes	Yes
Time FE	Yes	Yes	Yes	Yes	Yes	Yes
N	84,236	71,442	71,442	84,236	71,442	71,442
Pseudo R^2 or R^2	0.091	0.098	0.093	0.088	0.095	0.096

3. Empirical results

A source of this phenomenon: managers' foreign ethnic background

- Foreign managers tend to have higher OCI in the region of their ethnic origin.

$$OCI(Region)_{i,j,t} = \alpha + \beta_1 Same\ Region_{i,j,t} + \lambda_{i,t} + \varepsilon_{i,j,t},$$

	(1)	(2)	(3)	(4)	(5)	(6)
Same Region	0.01649***	0.01648***	0.01667***	0.01668***	0.0148***	0.0148***
	(6.36)	(6.38)	(6.28)	(6.28)	(5.83)	(5.85)
Same Region × First Generation			0.0151***	0.0150***	0.0146***	0.0143***
			(3.45)	(3.44)	(3.44)	(3.31)
Same Region × Solo-manager					0.0056*	0.0059*
					(1.78)	(1.89)
Fund characteristics	Yes	No	Yes	No	Yes	No
Style FE	Yes	No	Yes	No	Yes	No
Fund × Quarter FE	No	Yes	No	Yes	No	Yes
N	533,190	533,190	488,572	488,572	488,572	488,572
R^2	0.020	0.167	0.020	0.167	0.020	0.167

3. Empirical results

A source of this phenomenon: managers' foreign ethnic background

$$\alpha_{i,t}^{4F} = \alpha + \beta_1 Same\ Region_{i,t-1} + \beta_2 OCI\left(Region_j\right)_{i,t-1} + \beta_3 \times Same\ Region_{i,t-1} \times OCI\left(Region_j\right)_{i,t-1} + \beta_4 \times OCI\left(Rest_j\right)_{i,t-1} + \gamma X_{i,t-1} + \varepsilon_{i,t},$$

- Both region OCI and rest OCI have a positive and significant impact on fund performance.
- Indicates that fund managers choose stocks instead of national fortune.

	α_t^{4F}					
	East Asian (1)	Japanese (2)	Indian (3)	EU East (4)	EU West (5)	African (6)
OCI(Region) $_{t-1}$	0.340***	0.314**	0.701*	0.801	0.686**	0.315
	(2.87)	(2.59)	(1.95)	(1.05)	(2.48)	(0.50)
OCI(Region) $_{t-1}$ × Same Region $_{t-1}$	3.422***	0.995	0.308	1.296***	2.589***	0.664***
	(5.10)	(1.14)	(1.24)	(5.13)	(3.98)	(5.53)
Same Region $_{t-1}$	0.255***	0.346	0.318***	0.307***	0.024	0.533***
	(3.77)	(1.15)	(5.53)	(3.64)	(1.52)	(5.68)
OCI(Rest) $_{t-1}$	0.114***	0.096***	0.107***	0.113***	0.115***	0.127***
	(5.10)	(3.06)	(5.87)	(5.73)	(5.78)	(6.43)
Fund Characteristics	Yes	Yes	Yes	Yes	Yes	Yes
Style FEs	Yes	Yes	Yes	Yes	Yes	Yes
N	230,631	230,557	230,532	230,492	230,651	230,631
N of Months	237	237	237	237	237	237
R^2	0.173	0.176	0.171	0.171	0.169	0.172

3. Empirical results

A source of this phenomenon: managers' foreign ethnic background

$$\alpha_{i,t}^{4F} = \alpha + \beta_1 Same\ Region_{i,t-1} + \beta_2 OCI\left(Region_j\right)_{i,t-1} + \beta_3 \times Same\ Region_{i,t-1} \times OCI\left(Region_j\right)_{i,t-1} + \beta_4 \times OCI\left(Rest_j\right)_{i,t-1} + \gamma X_{i,t-1} + \varepsilon_{i,t},$$

- Both region OCI and rest OCI have a positive and significant impact on fund performance.
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3. Empirical results

Another explanation for choosing stocks: market timing.

- Obtain data on foreign stock market indices from Datastream (DS). $$FRet_{P,t-k:t} \equiv \sum_{m \in DS} \Theta_{P,k} \times Mkt^{m}_{t-k:t},$$
- Captures the portion of fund return predictability that can be attributable to the portfolio firms' foreign sales.
- Mkt is the market index return of a country.

	α_t^{4F} (1)	α_t^{4F} (2)	α_t^{4F} (3)	α_t^{4F} (4)	CS_t (5)	CS_t (6)	CS_t (7)	CS_t (8)
OCI_{t-1}	0.123***	0.123***			0.054***	0.054***		
	(7.16)	(7.19)			(6.11)	(6.12)		
$OCI(m \in DS)_{t-1}$			0.208***	0.209***			0.092***	0.093***
			(8.32)	(8.35)			(6.85)	(6.87)
$OCI(m \notin DS)_{t-1}$			0.948***	0.967***			0.200	0.197
			(2.63)	(2.66)			(1.23)	(1.22)
$FRet_{t:t}$	−0.216		−0.282		0.138		0.059	
	(−0.16)		(−0.22)		(0.23)		(0.10)	
$FRet_{t-2:t}$		0.139		0.137		0.160		0.134
		(0.20)		(0.20)		(0.51)		(0.42)
Other control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Style FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	256,805	256,805	256,805	256,805	257,120	257,120	257,120	257,120
N of Months	237	237	237	237	237	237	237	237
R^2	0.160	0.160	0.160	0.160	0.093	0.093	0.095	0.095

3. Empirical results

Another explanation for choosing stocks: market timing.

- Obtain data on foreign stock market indices from Datastream (DS). $$FRet_{P,t-k:t} \equiv \sum_{m \in DS} \Theta_{P,k} \times Mkt^{m}_{t-k:t},$$
- Captures the portion of fund return predictability that can be attributable to the portfolio firms' foreign sales.
- Mkt is the market index return of a country.

	α_t^{4F} (1)	α_t^{4F} (2)	α_t^{4F} (3)	α_t^{4F} (4)	CS_t (5)	CS_t (6)	CS_t (7)	CS_t (8)
OCI_{t-1}	0.123***	0.123***			0.054***	0.054***		
	(7.16)	(7.19)			(6.11)	(6.12)		
$OCI(m \in DS)_{t-1}$			0.208***	0.209***			0.092***	0.093***
			(8.32)	(8.35)			(6.85)	(6.87)
$OCI(m \notin DS)_{t-1}$			0.948***	0.967***			0.200	0.197
			(2.63)	(2.66)			(1.23)	(1.22)
$FRet_{t:t}$	−0.216		−0.282		0.138		0.059	
	(−0.16)		(−0.22)		(0.23)		(0.10)	
$FRet_{t-2:t}$		0.139		0.137		0.160		0.134
		(0.20)		(0.20)		(0.51)		(0.42)
Other control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Style FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	256,805	256,805	256,805	256,805	257,120	257,120	257,120	257,120
N of Months	237	237	237	237	237	237	237	237
R^2	0.160	0.160	0.160	0.160	0.093	0.093	0.095	0.095

3. Empirical results

OCI-changing trades, performance, and earnings announcements.

- Buy or sell trades changes ω, and then changes OCI(despite the changes occurred by stock returns).

$$\Delta OCI_i \equiv \frac{\partial OCI(\omega)}{\partial \omega_i} \approx \frac{OCI(\omega_i, \tilde{\omega}_{-i}) - OCI(\tilde{\omega}_i, \tilde{\omega}_{-i})}{\omega_i - \tilde{\omega}_i}$$
$$= \frac{OCI(\omega_i, \tilde{\omega}_{-i}) - OCI(\tilde{\omega})}{\omega_i - \tilde{\omega}_i},$$

- The trading of top OCI-decile funds is positively related to future earnings surprises.

3. Empirical results

OCI-changing trades, performance, and earnings announcements.

	All Trades			Stock Buys			Stock Sells		
	Buy	Sell	Difference	OCI Increasing	OCI Decreasing	Difference	OCI Increasing	OCI Decreasing	Difference
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	DGTW Benchmark-adjusted Return								
All Funds	0.194***	0.127**	0.067**	0.246***	0.096	0.151***	0.120*	0.157**	−0.037
	(3.04)	(2.34)	(2.47)	(3.34)	(1.27)	(3.14)	(1.79)	(2.50)	(−0.79)
D10	0.328***	0.182**	0.146**	0.422***	0.074	0.348***	0.221*	0.168*	0.053
	(3.28)	(2.13)	(2.23)	(3.87)	(0.48)	(2.63)	(1.66)	(1.77)	(0.40)
D1	0.115*	0.138***	−0.022	0.121*	0.127	−0.006	0.154**	0.132***	0.022
	(1.78)	(2.81)	(−0.58)	(1.85)	(1.56)	(−0.11)	(2.19)	(2.75)	(0.45)
	Difference:								
D10 − D1	0.212**	0.044	0.169**	0.301***	−0.053	0.354**	0.067	0.036	0.031
	(2.35)	(0.58)	(2.29)	(3.06)	(−0.36)	(2.39)	(0.56)	(0.41)	(0.23)

	All Trades			Stock Buys			Stock Sells		
	Buy	Sell	Difference	OCI Increasing	OCI Decreasing	Difference	OCI Increasing	OCI Decreasing	Difference
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Cumulative Market-adjusted Return over [−1, +1] around Earnings Announcement								
All Funds	0.311***	0.315***	−0.004	0.341***	0.281***	0.060	0.343***	0.291***	0.052
	(6.18)	(5.78)	(−0.11)	(6.95)	(5.16)	(1.44)	(6.68)	(4.72)	(1.24)
D10	0.491***	0.240**	0.251***	0.645***	0.403***	0.242**	0.240**	0.236**	0.004
	(5.84)	(2.50)	(3.04)	(7.16)	(2.83)	(2.43)	(2.02)	(2.48)	(0.04)
D1	0.160***	0.267***	−0.107*	0.161***	0.155***	0.006	0.357***	0.252***	0.105
	(3.01)	(3.64)	(−1.71)	(2.70)	(3.00)	(0.20)	(4.14)	(3.06)	(1.37)
	Difference:								
D10 − D1	0.330***	−0.027	0.357***	0.483***	0.247*	0.236**	−0.116	−0.015	−0.101
	(4.06)	(−0.31)	(4.02)	(5.30)	(1.83)	(2.11)	(−0.93)	(−0.17)	(−0.84)

4. Conclusion

- There is an economically strong and robust relation between a fund's offshore concentration and its abnormal performance.
- Fund managers' foreign origin is one important source of their information advantage on offshore markets.
- OCI primarily affects fund performance through better stock selection.
- The type of information high OCI funds have is related to firms' fundamentals such as corporate earnings.