
Choosing Investment Managers

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https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3651476

April 2021

Q Group

Claims and Contentions

- The delegation process is difficult. And rife with conflicts of interest
 - Lakonishok, Shleifer, and Vishny (1992)
- Industry has lots of inefficiencies, but these may be part of equilibrium, i.e. cost-of-doing business
 - Hart (1992)
- Pre-hiring returns are high but post-hiring returns are zero
 - Goyal and Wahal (2008)
- At best, consultants' recommendations do not add value
 - Jenkinson, Jones, and Martinez (2016)

Understanding the nature of equilibrium requires knowledge of the *choice* mechanism

Choice and the opportunity set?

History / Importance of Choice: McFadden (1974)

The role of experts

RFPs are a form of directed search

Outcomes are objective and observable

1. Sheds light on mechanisms that generate frictions
 - If a characteristic X is used to choose from a group, one can only know something about the role of X if there is variation in X between the chosen and the unchosen
2. Outcomes from the opportunity set represent the counterfactual
 - Helpful for quantifying opportunity costs
 - Counterfactual is 'investable' (Berk and van Binsbergen, 2015)
 - No claim about risk

What we do

1. Examine selection by focusing on the opportunity set. Two primary determinants of choice
 - a) Past returns
 - b) Relationships
2. Analyze consequences of selection

Data

Statistics

- 2002 to 2017
- 2,005 plan sponsors (U.S. and ex-U.S.; public and non-public)
- 775 investment managers
- 6,939 mandates in public equity and fixed income (domestic and international)
- \$1.6 trillion in assets delegated

Sources

- FundMap: Mandate information
- eVestment: Manager information
- Relationship Science: Connection information

Data: FundMap and eVestment

FundMap tracks RFPs. We know

- Who hired: Calpers
- Who got hired: DFA
- When: July 2006
- For: \$50m in small-cap value
- Consultant: Mercer
- (sometimes) Finalists: Westwood Global Investments, AQR

We know returns, AuMs, and fee schedules from eVestment

Data: Relationship Science

Connections based on publicly verifiable data sources, including SEC records, court records, and financial statements (absent are self-reported linkages, LinkedIn etc.)

- Some connections missed but false positive rate is likely lower
- Caters to non-profits (endowments & foundations) and financial institutions
- Individuals in senior positions beyond the C-suite, 10m individuals
- Example (me): connected to people at DFA (2005-2019), Avantis Investors (2020 onwards), and others (Inv. Committees)

We aggregate connections at the organization-level to construct dummy variables

- **PSxIM**: Plan Sponsor and Investment Manager connection
- **IMxIC**: Investment Manager and Investment Consultant connection

Opportunity set construction

All products the same geographic focus, equity capitalization/duration, equity/fixed income style (core, value, growth/ core, high yield, mortgage, etc.), and benchmark

Trim the matches based on product names

Require products to have three-year returns prior to mandate

Summary statistics (1)

Allocations to equity and fixed income

Investment style	US				ROW			
	N	Sum \$B	Average \$M	Median \$M	N	Sum \$B	Average \$M	Median \$M
Panel A: Equity								
All Cap Core	708	259	365	75	733	187	255	133
All Cap Growth	247	44	180	60	74	24	328	106
All Cap Value	217	29	132	35	67	16	235	77
Large Cap Core	285	67	235	50	130	35	269	144
Large Cap Growth	457	58	127	30	59	18	310	104
Large Cap Value	441	65	148	35	59	12	203	113
Mid Cap Core	72	4	62	15	2	0	51	51
Mid Cap Growth	89	8	93	35	0	0	0	0
Mid Cap Value	96	10	103	33	0	0	0	0
Small Cap Core	398	87	220	25	61	6	102	46
Small Cap Growth	402	42	104	37	24	6	252	50
Small Cap Value	365	33	92	42	19	3	159	20
Panel B: Fixed Income								
All Duration Core	465	139	298	50	95	33	347	99
All Duration Non-Core	114	37	325	100	102	35	344	107
Long Core	40	12	298	124	22	6	273	152
Long Non-Core	51	13	249	100	40	23	581	146
Intermediate Core	278	83	298	50	53	22	413	87
Intermediate Non-Core	296	88	297	75	119	31	258	81
Short Core	74	12	158	30	4	3	780	618
Short Non-Core	150	58	387	46	31	3	92	51

Summary statistics (2)

Hired firm (a) has higher pre-hiring 3-year cumulative excess returns, CER(-3), (b) is bigger, and (c) has similar fees

	Hired Firm					Opportunity Set					
	N	AuM (\$B)		CER(-3)	Fees	# firms		AuM (\$B)		CER(-3)	Fees
		Avg	Med			Avg	Med	Avg	Med		
All Cap Core	1,444	444	1,865	6.49	0.67	76	74	196	203	4.98	0.66
All Cap Growth	324	110	363	10.28	0.74	19	15	176	163	7.75	0.69
All Cap Value	285	74	111	9.96	0.76	29	17	107	70	4.63	0.79
Large Cap Core	415	236	203	5.86	0.59	85	95	124	83	2.78	0.57
Large Cap Growth	520	136	10	10.83	0.61	154	191	121	84	5.77	0.61
Large Cap Value	502	79	146	9.07	0.59	120	153	104	95	3.39	0.57
Mid Cap Core	74	38	58	6.62	0.66	70	67	97	76	1.80	0.66
Mid Cap Growth	90	117	86	9.98	0.71	101	103	120	116	3.52	0.71
Mid Cap Value	96	70	147	9.35	0.78	89	86	116	104	3.39	0.75
Small Cap Core	459	153	94	10.58	0.84	105	142	192	140	4.71	0.83
Small Cap Growth	427	58	54	14.18	0.91	129	159	107	84	8.19	0.87
Small Cap Value	384	66	100	9.31	0.85	153	173	92	89	5.82	0.86
All Core	561	374	102	1.97	0.28	133	156	185	123	1.07	0.30
All Non-Core	216	370	83	1.63	0.46	24	22	344	337	0.45	0.45
Long Core	62	236	144	2.95	0.24	94	10	143	116	1.32	0.28
Long Non-Core	91	484	227	2.88	0.32	17	11	280	210	1.96	0.34
Intermediate Core	331	493	204	3.24	0.34	130	150	145	105	0.91	0.35
Intermediate NonCore	416	447	95	4.20	0.41	25	18	263	232	1.53	0.42
Short Core	78	314	22	0.49	0.28	113	163	159	118	0.23	0.29
Short Non-Core	181	175	33	3.70	0.44	40	26	205	191	2.65	0.42

~100 in the opportunity set
 ⇒ unconditional Prob(Hired) ~1%

Summary statistics (3)

Hired firms are more connected

U.S. plan sponsors are more connected (maybe a data bias)

	Chosen Firm		Opportunity Set	
	Connected	Unconnected	Connected	Unconnected
Panel A: Connection frequencies between plans sponsors and investment managers (PSxIM)				
Unconditional distribution	5.5	94.5	5.5	94.5
Global	24.3	75.7	16.1	83.9
US	27.1	72.9	17.0	83.0
ROW	15.3	84.7	8.4	91.6
Large plans & large firms	40.4	59.6	42.6	57.4
Small plans & large firms	11.9	88.1	10.0	90.0
Large plans & small firms	27.0	73.0	16.0	84.0
Small plans & small firms	4.5	95.5	2.7	97.3

Selection equations

$$\Pr(\text{Hired}_{PS,IM,IC}) = f(\beta_0 + \beta_1 PSxIM + \beta_2 IMxIC + \beta_3 CER(-3)_{IM} + \beta_4 AuM_{IM} + FE)$$

	Logit	Clogit	OLS	
PSxIM	0.206 (4.58)	0.266 (3.42)	0.004 (3.96)	
IMxIC	0.160 (3.91)	0.181 (2.14)	0.003 (2.81)	
$CER_{IM}(-3)$	2.829 (4.87)	2.957 (3.33)	0.004 (4.70)	
$\log(AuM_{IM})$	0.129 (2.80)	0.125 (2.48)	0.002 (2.53)	4,315 mandates 346,317 observations
Pseudo-R ²	10.3%	2.4%	2.3%	
<u>Marginal Effects (percent)</u>				
Unconditional	1.25	—	1.25	
PSxIM	0.26($\Delta=21\%$)	—	0.39	
IMxIC	0.20($\Delta=16\%$)	—	0.28	
$CER_{IM}(-3)$	0.28($\Delta=22\%$)	—	0.37	
$\log(AuM_{IM})$	0.52($\Delta=42\%$)	—	0.57	
<u>Fixed Effects</u>				
Plan Region	Y	N	N	
Plan Type	Y	N	N	
Style×Geog. Focus	Y	N	Y	
Plan ID	N	N	Y	
Mandate ID	N	Y	N	

Thresholds of belief

Alternative samples

- Similar across U.S. and RoW plans
- Similar across public and non-public plans (albeit the role of IMxIC is bigger for public plans)

Alternative opportunity sets yield similar results

- More than \$1B in AuM
- Randomly chosen opportunity set with only 5 managers (Kuhnen, 2009)
 - Mechanically changes unconditional probabilities
 - Repeat 5,000 times
 - Re-estimate choice regressions

Why do relationships matter?

1. Conduit for information sharing; solve asymmetric information problems; reduce search costs (Cohen, Frazzini, and Malloy, 2008, 2010)
2. Used to extract rents (Haselmann, Schoenherr, and Vig, 2018)
3. Generate trust aka 'money-doctors' (Gennaioli, Shleifer, and Vishny, 2015)

Consequences of selection

Relationships

- Conduit for information sharing (+)
- Used to extract rents (−)
- Generate trust (0)

We analyze post-hiring 'gross' returns to disentangle the value of relationships

$$\begin{aligned} CER_{IM}(+3) &= \beta_0 + \beta_1 Hired_{PS,IM} + \beta_2 PS \times IM \\ &+ \beta_3 IM \times IC + \beta_4 PS \times IM \times Hired_{PS,IM} + \beta_5 IM \times IC \times Hired_{PS,IM} + \beta_6 \ln AuM_{IM} + FE \end{aligned}$$

Relationships and future returns

	Asset Class		Plan Region		Plan Type		
	All	Equity	Fixed Income	US	ROW	Public	Non-Public
Panel A: Regressions of three-year returns of hired firms and the opportunity set							
Intercept	0.99 (1.33)	1.15 (1.82)	0.44 (0.38)	0.73 (0.92)	4.61 (6.08)	0.53 (0.77)	2.39 (2.07)
Hired _{PS,IM}	-0.77 (-2.60)	-0.94 (-2.75)	-0.23 (-0.57)	-0.80 (-2.10)	-0.44 (-0.39)	-0.88 (-2.72)	-0.48 (-1.23)
PSxIM	-0.04 (-0.33)	0.10 (0.67)	-0.34 (-5.33)	-0.04 (-0.30)	-0.14 (-0.36)	0.01 (0.08)	-0.10 (-0.62)
IMxIC	0.27 (2.24)	0.36 (2.42)	-0.13 (-1.84)	0.23 (2.06)	0.90 (3.52)	0.19 (1.49)	0.48 (2.67)
Hired _{PS,IM} × PSxIM	-0.24 (-0.52)	-0.41 (-0.67)	-0.18 (-0.42)	-0.24 (-0.46)	-0.14 (-0.19)	-0.44 (-0.75)	0.22 (0.48)
Hired _{PS,IM} × IMxIC	-0.10 (-0.31)	-0.28 (-0.68)	-0.03 (-0.09)	0.09 (0.21)	-0.91 (-1.68)	-0.24 (-0.63)	0.17 (0.24)
log(AuM _{IM})	0.03 (0.40)	-0.00 (-0.04)	0.14 (1.23)	0.05 (0.56)	-0.19 (-2.54)	0.07 (0.83)	-0.07 (-0.54)
#mandates	4,395	3,303	1,092	3,501	894	3,054	1,341
#observations	306,938	224,093	82,845	284,725	22,213	226,702	80,236
Adjusted R ²	7.2%	7.5%	25.8%	7.5%	4.4%	6.2%	10.2%

Results

Comparison	Result	Interpretation
<u>General selection ability</u>		
Hired&Unconnected – Opset&NotConnected	–0.77% (–2.60)	
Hired&Connected(PSxIM) – Opset&NotConnected	–1.05% (–2.21)	No ability to select investment managers. Or worse
Hired&Connected(IMxIC) – Opset&NotConnected	–0.60% (–1.54)	

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<hr/>		
<u>Value of connections.1</u>		
H&C(PSxIM) – OS&C (PSxIM)	–1.01% (–2.00)	Connections are not valuable source of information. Or worse
H&C(IMxIC) – OS&C (IMxIC)	–0.87% (–2.11)	
<hr/>		

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<hr/>		
<u>Value of connections.2 (Diff-in-diff)</u>		
[H&C – OS&C] – [H&NC – OS&NC] C ≡ PSxIM	–0.24% (–0.52)	Connections provide little information even after controlling for lack of general selection ability
[H&C – OS&C] – [H&NC – OS&NC] C ≡ IMxIC	–0.10% (–0.31)	

Post-Hiring Returns

Comparison	Result	Interpretation
<u>General selection ability</u>		
Hired&Unconnected – Opset&NotConnected	–0.77% (–2.60)	No ability to select investment managers. Or worse
Hired&Connected(PSxIM) – Opset&NotConnected	–1.05% (–2.21)	
Hired&Connected(IMxIC) – Opset&NotConnected	–0.60% (–1.54)	
<u>Value of connections.1</u>		
H&C(PSxIM) – OS&C (PSxIM)	–1.01% (–2.00)	Connections are not valuable source of information. Or worse
H&C(IMxIC) – OS&C (IMxIC)	–0.87% (–2.11)	
<u>Value of connections.2 (Diff-in-diff)</u>		
[H&C – OS&C] – [H&NC – OS&NC] C ≡ PSxIM	–0.24% (–0.52)	Connections provide little information even after controlling for lack of general selection ability
[H&C – OS&C] – [H&NC – OS&NC] C ≡ IMxIC	–0.10% (–0.31)	
<u>Value of connections.3</u>		
H&C(PSxIM) – H&NC	–0.28% (–0.62)	Same story (ignores opportunity set; comparison across different mandates)
H&C(IMxIC) – H&NC	0.17% (0.52)	

Post-Hiring Information Ratios

Comparison	Result	Interpretation
<u>General selection ability</u>		
Hired&Unconnected – Opset&NotConnected	-0.23 (-4.42)	No ability to select investment managers. Or worse
Hired&Connected(PSxIM) – Opset&NotConnected	-0.23 (-3.45)	
Hired&Connected(IMxIC) – Opset&NotConnected	-0.11 (-2.45)	
<u>Value of connections.1</u>		
H&C(PSxIM) – OS&C (PSxIM)	-0.21 (-2.91)	Connections are not valuable source of information. Or worse
H&C(IMxIC) – OS&C (IMxIC)	-0.16 (-3.37)	
<u>Value of connections.2 (Diff-in-diff)</u>		
[H&C – OS&C] – [H&NC – OS&NC] C ≡ PSxIM	-0.10 (-1.61)	Connections provide little information even after controlling for lack of general selection ability
[H&C – OS&C] – [H&NC – OS&NC] C ≡ IMxIC	-0.05 (-1.54)	
<u>Value of connections.3</u>		
H&C(PSxIM) – H&NC	-0.12 (-2.00)	Same story (ignores opportunity set; comparison across different mandates)
H&C(IMxIC) – H&NC	-0.01 (-0.16)	

Thresholds of belief (again)

Random bootstrap with small opportunity sets

- Randomly select 5 firms in opportunity set (mechanically changes unconditional probabilities). Repeat 5,000 times
- Re-estimate return regressions

	Original	Bootstrap
H&C – OS&NC	-0.88	-1.24
Using PSxIM: [H&C – OS&C] – [H&NC – OS&NC]	-0.24	-0.37
Using IMxIC: [H&C – OS&C] – [H&NC – OS&NC]	-0.10	0.01
Using PSxIM: H&C – H&NC	-0.28	-0.51
Using IMxIC: H&C – H&NC	0.17	0.16

Fee differentials do not explain differences in returns (fees are the same)

Finalists

An example:

“The system hired Investec Asset Management to handle a \$12.6 million international equity emerging markets strategy. Dimensional Fund Advisors and Westwood Global Investments were the other finalists”

The sample is quite small, 183 mandates. Low power.

And yet...the selection equation

	Intercept	PSxIM	IMxIC	CER _{IM} (-3)	log(AuM _{IM})
Coefficient	-0.220 (-0.48)	0.038 (0.14)	0.496 (2.47)	4.568 (3.56)	-0.070 (-1.59)
Marginal effect (percent)	36.38	0.84	11.38	9.72	-5.08

Post-Selection Performance

How do the winners do?

	Pre-Hiring Years			Post-Hiring Years		
	-3	-2	-1	+1	+2	+3
Hired	7.18 (8.35)	3.81 (5.77)	0.77 (2.20)	0.24 (0.86)	0.09 (0.32)	0.59 (1.64)
Non-Hired Finalists	4.36 (10.38)	2.68 (7.44)	0.80 (2.76)	0.30 (0.86)	0.55 (1.67)	0.91 (2.07)
Difference	2.82 (4.09)	1.14 (2.33)	-0.04 (-0.08)	-0.05 (-0.18)	-0.46 (-1.07)	-0.31 (-0.46)

Do Connections help?

H (PSxIM=0, IMxIC=1) – OS (NC)	-3.57 (-2.73)
H (PSxIM=0, IMxIC=1) – OS (PSxIM=0, IMxIC=1)	-2.63 (-1.65)
H (PSxIM=0, IMxIC=1) – H (PSxIM=0, IMxIC=0)	-3.43 (-2.59)

Cui Bono?

- Benign: No positive excess returns to selection based on either prior performance or connections
- Harsh: Post-hiring excess returns, both with and without connections, are negative

Gains to trade are unequally shared – investment managers benefit from connections by larger received flows and, therefore, fees, but even at best, plan sponsors do not receive higher returns or lower fees

Plan sponsors may receive non-pecuniary or other compensating benefits that we are unable to measure

Teaser: Private Equity