Social Proximity to Capital:
Implications for Investors and Firms

by Theresa Kuchler, Yan Li, Lin Peng, Johannes Stroebel, Dexin Zhou

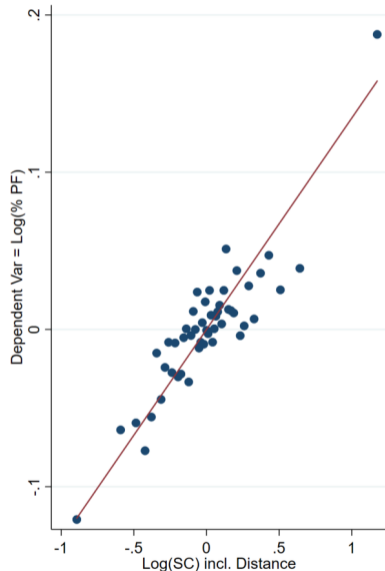Arpit Gupta (NYU Stern)

January 5, 2021

Paper Follows A Common Format for Compelling Arguments

1. Tell a story

2. Show baseline correlation consistent with story

3. Show other patterns that are consistent with own story, and inconsistent with plausible alternatives

4. Repeat 3 until best remaining alternative is convoluted

"Present-day friendship links between counties are determined by a large number of factors, including historical migration movements. For example, the great Migration of African-Americans from the South to Northern industrial cities in the 1940s-1960s shows up as stronger present-day friendship links between Chicago and Mississippi. As a result, we argue that the investor Northern Trust, based in Chicago, is disproportionately connected to the firm Trademark Corporation, found in Mississippi."

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Panel A: Heterogeneity across Firm Size Groups				
	(1)	(2)	(3)	(4)
Small Cap × Log Social Connectedness	0.351***	0.421***	0.536***	0.553***
	(7.08)	(4.34)	(6.24)	(6.13)
Mid Cap × Log Social Connectedness	0.327***	0.483***	0.539***	0.548***
	(13.11)	(10.43)	(10.45)	(10.22)
Large Cap × Log Social Connectedness	0.174***	0.224***	0.276***	0.268***
	(13.10)	(8.99)	(10.65)	(9.71)

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Panel B: Heterogeneity by Analyst Coverage Groups

	(1)	(2)	(3)	(4)
Low Coverage × Log Social Connectedness	0.393***	0.532***	0.681***	0.737***
	(9.61)	(7.94)	(9.47)	(9.37)
Mid Coverage × Log Social Connectedness	0.290***	0.429***	0.447***	0.442***
	(13.84)	(11.32)	(9.79)	(9.20)
High Coverage × Log Social Connectedness	0.162***	0.214***	0.265***	0.253***
	(12.13)	(8.60)	(10.40)	(9.37)

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	(1)	(2)	(3)	(4)	(5)
Log Social Connectedness	0.180***	0.286***	0.276***	0.069**	0.381***
	(15.86)	(12.48)	(11.21)	(2.11)	(3.51)
Firm × Quarter FE	YES	YES	YES	NO	NO
Institution × Quarter FE	YES	YES	YES	YES	YES
Firm × Institution FE	NO	NO	NO	YES	YES
Institution × Industry FE	YES	YES	YES	NO	NO
Distance 500-tile FE	NO	YES	YES	YES	YES
Same State FE	NO	NO	YES	YES	YES
Same County FE	NO	NO	YES	YES	YES

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	(1)	(2)	(3)	(4)	(5)
			Whole Sample		
I(Sandy) × Affected Capital Ratio	0.240***	0.240**	0.220**	0.203**	0.200**
	(2.64)	(2.63)	(2.64)	(2.30)	(2.56)

1. What is SCI actually proxying for? Direct social connections, common group membership, or broader regional familiarity?

2. Implications for Changing Clusters of Economic Activity

1. What is SCI proxy for?

SCI: $= \frac{Friendships_{i,j}}{Population_i \times Population_j}$

- Predictiveness of SCI at regional level can reflect:
    1. Aggregation of individual social connections; ie Bailey, Cao, Kuchler, Stroebel (2018 JPE)

    2. Common group membership. Classic: Greif on Maghribi Traders; Modern: Badarinza Ramadorai, Shimizu (2020), Hedge Tumlinson (2014) below.

    3. Broader regional familiarity/affinity (something like home bias)

1. Role for Co-ethnic Group Affiliation in Investment
Badarinza Ramadorai, Shimizu (2020)

Regression of price in commercial real estate transactions, comparing same- and different-nationality sellers.

Pricing: Different-nationality counterparties	
Relative price for different-nationality transactions (π)	-0.0736***
	(0.0088)
Estimated residual price dispersion (σ)	0.3188
Hedonic control variables	Yes
Location fixed effects	Yes
Year fixed effects	Yes
Number of obs.	123,648
R^2	0.6250

1. Role for Co-ethnic Group Affiliation in Investment
Badarinza Ramadorai, Shimizu (2020)

$$\log N_{i,k,t} = \mu_i + \mu_k + \mu_t + \rho \log N_{i,k,t-1} + \beta_0 \log D_{i,k} + \beta_1 \log N^S_{i,k,t} + \boldsymbol{\beta_2}\mathbf{F_{i,k}} + \varepsilon_{i,k,t},$$

where $N_{i,k,t}$ is the number of transactions by buyers incorporated in country i in the destination country k during year t, $N^S_{i,k,t}$ is the number of transactions in country k in period t weighted by the estimated affinity that buyer nationality i has with the respective counterparty, and $\mathbf{F_{i,k}}$ are variables that capture the strength of the cultural and economic relationship between countries i and k. We calculate average historical trade flows between country pairs i and k for the period 1985-2005. In parentheses, we report standard errors two-way clustered at the buyer and location country level. *, ** and *** denote statistical significance for 10%, 5% and 1% confidence levels.

Log distance (β_0)	−0.433***	−0.285*	−0.168	−0.077	−0.060
	(0.104)	(0.157)	(0.102)	(0.130)	(0.080)
Density of desirable sellers (β_1)			0.447***	0.444***	0.247***
			(0.069)	(0.067)	(0.047)

5

1. Role for Co-ethnic Group Affiliation Comparison
Hedge Tumlinson (2014)

Table 5 Relationship Between Ethnic Proximity and Probability of VC-Company Match by Company Life-Stage

	1	2	3	4	5	6	7	8	9	10
Life-cycle stage:	Seed stage		Early stage		Expansion stage		Late stage		Buyout and acquisition stage	
D.V.: *VC-company match* (0/1)	Probit	*dy/dx*	Probit	*dy/dx*	Probit	*dy/dx*	Probit	*dy/dx*	Probit	*dy/dx*
Coethnic distinct groups	0.111** [0.031]	0.0003** [0.000]	0.087** [0.021]	0.0003** [0.000]	0.101** [0.031]	0.0003** [0.000]	0.074 [0.065]	0.0002 [0.000]	0.019 [0.036]	0.0001 [0.000]
Log *geographic distance*	−0.146** [0.007]	−0.0003** [0.000]	−0.134** [0.004]	−0.0004** [0.000]	−0.122** [0.005]	−0.0004** [0.000]	−0.142** [0.012]	−0.0003** [0.000]	−0.107** [0.007]	−0.0003** [0.000]

Table 9   **Relationship Between Ethnic Proximity and Post-IPO Performance**

D.V.:	1	2	3	4
	Market capitalization		Net income	
Coethnic distinct groups	0.091*	0.111*	0.005*	0.009†
	[0.041]	[0.055]	[0.002]	[0.005]
Log *geographic distance*	−0.012†	−0.011	−0.272	−0.897
	[0.006]	[0.010]	[0.389]	[0.812]

1. Understanding Migration and SCI
Bailey Cao Kuchler Stroebel Wong (2018 JEP)

Panel C: Dependent Variable: log(County-Level Migration)

log(Distance)	−0.973***		0.023	0.031
	(0.048)		(0.021)	(0.021)
log(SCI)		1.134***	1.148***	1.159***
		(0.019)	(0.024)	(0.024)
County Fixed Effects	Y	Y	Y	Y
Other County Differences	N	N	N	Y
Observations	25,305	25,305	25,305	25,287
R^2	0.610	0.893	0.893	0.893

WTP elicited from survey; these are direct financial cost of moving.

Financial moving costs

10th: −1.4e+03 50th: −341 90th: 279 Avg: −990 N: 175
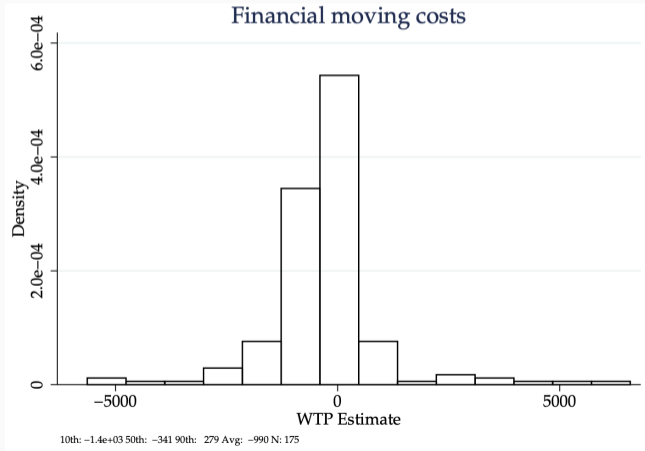
Role of direct social connections makes sense

Family nearby

10th: 2.9e+03 50th: 1.5e+04 90th: 3.6e+04 Avg: 1.5e+04 N: 181
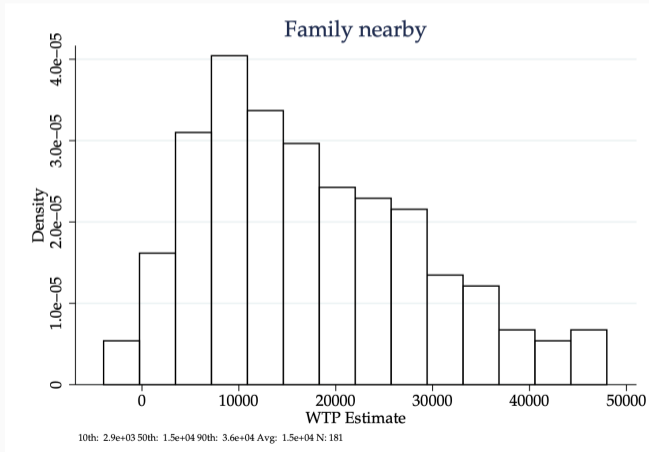
However, people also seem to really value more intangible aspects of local norms (think: "people are too passive aggressive on the West Coast" or "People are much nicer in the South than in Boston")
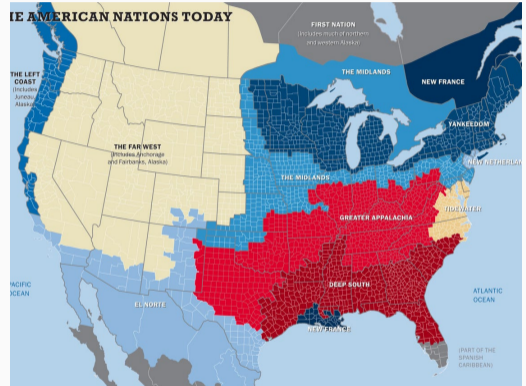

Local cultural norms

10th: −516 50th: 6.0e+03 90th: 3.6e+04 Avg: 1.2e+04 N: 158
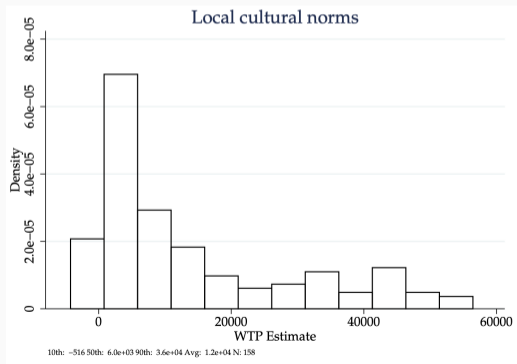
Connected Communities within the United States—20 Units
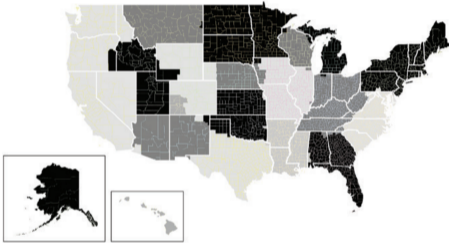
Note: Figure shows US counties grouped together when we use hierarchical agglomerative linkage clustering to create 20 distinct groups of counties.

American Nations by Colin Woodard; Drawing on Albion's Seed

What SCI Proxies for:

- Very intuitive that people make decisions based on who they know. Limit: Dunbar's number: ~150, number of acquaintances people tend to have.

- Common group affinity extends role of social influences further to people you may not know directly, but at are least potentially in your wide social network.

- Both channels rely on information and better contract enforcement in the context of asymmetric information.

- Possible room for future work: is there an even higher level of structure to social connectivity? Something like: very broad level of familiarity with certain social classes/geographic regions, based on familiarity, common norms, and values.
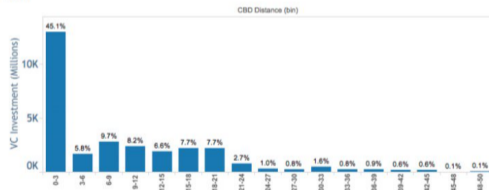
2006

CBD Distance (bin)
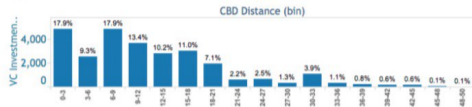
2006: Most VC investment went to firms 10 or more miles from the CBD
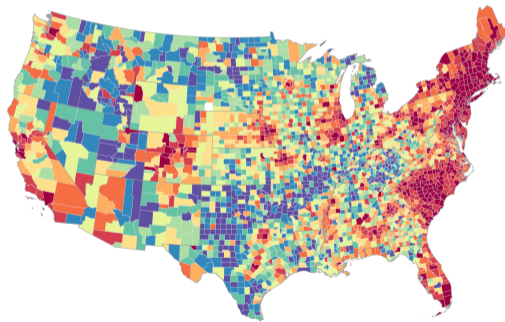
2016

CBD Distance (bin)

2016: Nearly half of all VC investment went to firms within 3 miles of the CBD.

CityObservatory

2. Implications for More Dispersed Future? New Hubs Tend to be Socially Connected to Prior Ones
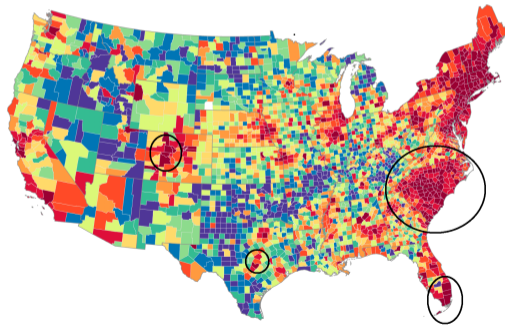

Figure 3: Heat Map of Social Proximity to Capital

This figure plots the heat map of *Social Proximity to Capital* across U.S. counties as of June 2016. *Social Proximity to Capital* of county j is defined as $\sum_i County\ AUM_i \times Social\ Connectedness_{i,j}$. Regions in red have higher levels of *Social Proximity to Capital* and regions in blue indicate lower levels of *Social Proximity to Capital*.
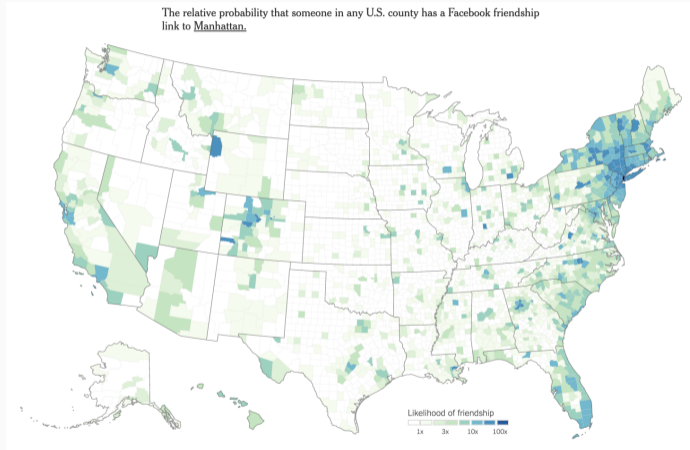
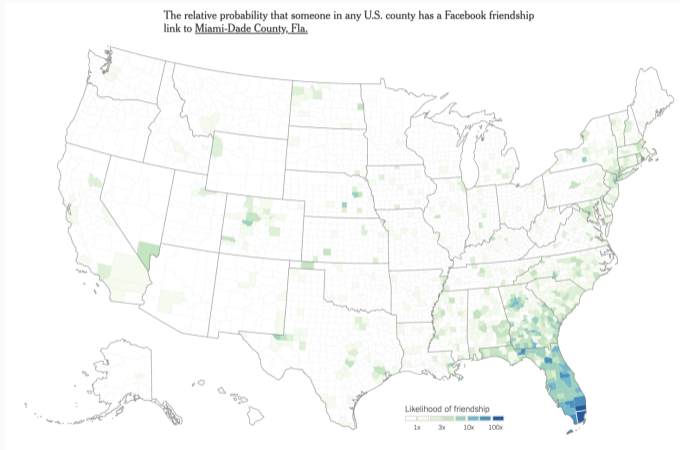**Figure 3:** Heat Map of Social Proximity to Capital

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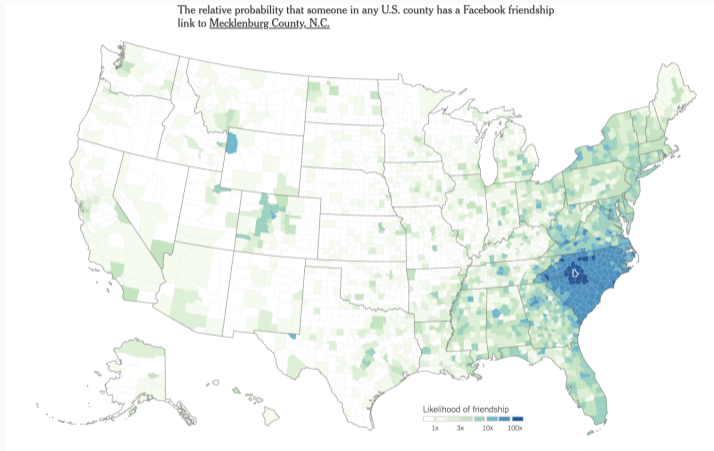
The relative probability that someone in any U.S. county has a Facebook friendship link to Manhattan.

Likelihood of friendship
1x   3x   10x   100x

The relative probability that someone in any U.S. county has a Facebook friendship link to Miami-Dade County, Fla.

The relative probability that someone in any U.S. county has a Facebook friendship link to Mecklenburg County, N.C.

Likelihood of friendship

1x   3x   10x   100x

Keith Rabois
@rabois

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How many people are moving to Miami? Just ran into three people in my Barrys class who I had no idea were here (two from SF, one from NYC).

5:44 AM · Dec 19, 2020 · Twitter for iPad

2. Speculative Implications for Remote Activity

- Investment Management has remained centralized, despite high costs, because of high agglomeration economies (positive spin: knowledge spillovers; negative spin: insider trading).

- However, the high social connectivity of physically distant urban clusters has enabled flight once a shock hits (initially temporary, maybe permanent).

- If/when more investment activity migrates to second-tier clusters; resulting new social links may expand access to capital in those areas.

- Points to efficiency/equity tradeoffs in the spatial distribution of investment management.
  - Moving people to socially connected areas is hard (NIMBYism, people value local attachments).
  - Moving capital to less connected regions is another option.

Conclusion:

- Compelling paper shows that social networks influence investment behavior

- Part of broader agenda in social finance: role of social connections in driving behavior broadly

- Room for future research: which social connections matter, and why?
    - Role for personal connections
    - People who share group affinities
    - Even broader social links between regions, corresponding to shared valued and norms?

- How will social connections matter in world that does more remote work, might be more economically dispersed?