

# ANCESTRAL CONNECTIONS AND CORPORATE ALLIANCES: THE ROLE OF CULTURE IN MITIGATING HOLDUP

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AEA Poster 2022

# Motivation

- Theory of the firm: transaction costs and incomplete contracts determine firm boundaries
  - Joint production suboptimal due to holdups (Grossman-Hart-Moore model)
- Culture can be an implicit incentive-alignment mechanism (Kreps 1990, Cremer 1993, Lazear, 1995, Hermalin 2001), at times more efficient than explicit contracts (Gorton and Zentefis 2020)
  - Induce coordination under incomplete contracting
  - Unforeseeable contingencies
  - Selecting from multiple equilibria

# FYI Resources (ASX:FYI) and Alcoa begin exclusive joint venture discussions

Industrial

ASX:FYI MCAP \$157.3M



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06 May 2021 10:20



"We believe there is a highly complementary fit between the corporate objectives, cultures and operational expertise of FYI and Alcoa," said Managing Director Roland Hill.

## Atlas Real Estate, DivcoWest Form \$1B SFR Joint Venture

APR  
28  
2021

The partnership will acquire and renovate homes throughout the western United States.

By Gail Kalinoski



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Asked how the JV venture for the SFR market came about with DivcoWest, Deorio responded: "We spoke to a number of potential capital partners and zeroed in on DivcoWest after many in-depth conversations with their team. From the start, they seemed to be a great fit and not only aligned with our vision in the space, but it turns out that we share a remarkably similar corporate culture and values. As a pioneering commercial real estate company with a knack for identifying and capitalizing on high-growth western markets, DivcoWest is a perfect partner for our long-term objectives in the SFR space."

## Turnkey Consulting launches joint venture with Legion Star

📅 18 March 2021 | Consulting.us | 2 min. read

Turnkey conducted six months of research and due diligence before selecting Legion Star, citing the firm's IAM capabilities, alignment of service offerings, and similar culture.

# Research framework

- Cultural determinants of firm (organizational and physical) boundaries
  - “we define culture as those customary beliefs and values that ... transmit fairly unchanged from generation to generation.” (Guiso et al. 2006)
  - emerging literature on historical immigration as the seed for people’s values and preferences today (e.g., Giuliano and Tabellini 2020)
  - U.S. instead of international setting: effectively controls for other institutional differences, with historical immigration capturing the deep root of cultural differences within the U.S.
- The role of stakeholders’ ancestral connections in business alliances:
  - Partnering decision
  - Location decision
  - Performance

# Analysis roadmap

- Ancestral connections between different areas in the U.S. transmit ideological shocks
- The effect of ancestral connection on alliance formation
  - State/county/city-pair-level analysis
  - Partner-pair-level analysis
- Identification: ancestral connection determined by historical immigration
  - Shift-share instrument, exploiting immigration to U.S. cities induced by WWI and the Immigration Acts of the 1920s
- The effect of ancestral connection on location decision (of the new venture)
- Market reaction
  - Stakeholders (e.g., key inventors) vs. corporate leaders

# Ancestral distance measure

- 1980 Census data with 138 ancestry group categories (robustness using 10 broader ancestry groups)
- The fraction of the population in each group
- A vector  $(x_1, x_2, \dots, x_{138})$  of ancestral fractions for each place (state, county, or city)
- *Ancestral Distance* is the Manhattan ( $L_1$ ) distance

$$\textit{Ancestral Distance}_{x,y} = \sum_{i=1}^{138} |x_i - y_i|$$

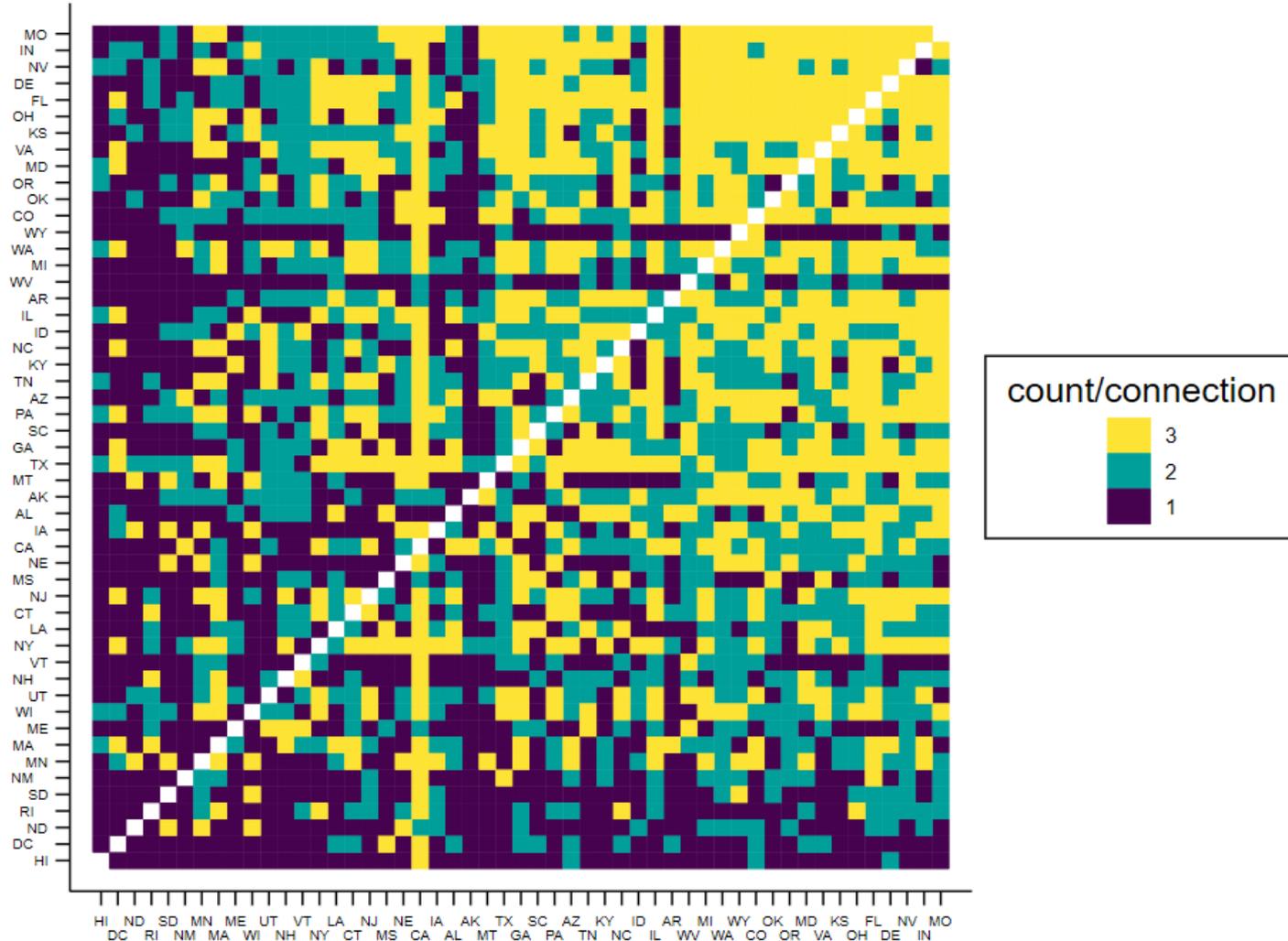
- *Ancestral Connection* = 2 – Ancestral Distance

# Ideology Transmission Through Ancestral Connection

- Finance literature: political ideology in determining many corporate and portfolio decisions (e.g., Di Giuli and Kostovetsky 2014; Cookson et al. 2021)
- Economic literature: ancestral origin has long lasting impact on American political ideology today (Giuliano and Tabellini 2020)
- Political literature: Sinclair as a shock to local political ideology (Martin and McCrain 2018)

Dependent	$\Delta$ Republican share <sub>it</sub>			
$\Delta$ Sinclair <sub>it</sub>	0.007*** (0.001)	0.007*** (0.001)	0.005*** (0.002)	0.011** (0.005)
$\Delta$ AC weighted Sinclair <sub>it</sub>		0.462*** (0.108)	0.442*** (0.108)	0.472*** (0.109)
$\Delta$ Geo. weighted Sinclair <sub>it</sub>			0.037 (0.031)	
$\Delta$ FB weighted Sinclair <sub>it</sub>				-0.006 (0.007)
State-year FEs	Yes	Yes	Yes	Yes
Observations	15,518	15,518	15,518	15,518
Adjusted R-squared	0.746	0.746	0.746	0.746

# Heat map of corporate alliance and ancestral connection



# Ancestral distance and alliance formation, state-pair level

Dependent	(1) <i>Count</i>	(2) <i>ln(count)</i>	(3) <i>ln(count)</i> count>0	(4) <i>ln(count)</i> excl. DE	(5) <i>ln(count)</i>
<i>Ancestral Distance</i>	-9.859** (4.601)	-0.395*** (0.119)	-0.469*** (0.152)	-0.392*** (0.119)	-0.358*** (0.112)
<i>Border</i>		0.163*** (0.050)	0.113* (0.057)	0.153*** (0.051)	0.144*** (0.042)
<i>Geographic Distance</i>		-0.050* (0.027)	-0.032 (0.024)	-0.062** (0.026)	-0.013 (0.031)
<i>Ind_diff</i>		-0.876*** (0.140)	-0.689*** (0.170)	-0.921*** (0.139)	-0.865*** (0.139)
<i>Female_diff</i>					-0.051 (0.041)
<i>Age_diff</i>					-0.064** (0.027)
<i>College_diff</i>					-0.029* (0.015)
State FEs		Yes	Yes	Yes	Yes
Double cluster	Yes	Yes	Yes	Yes	Yes
Observations	1,275	1,246	770	1,197	1,246
Adjusted R-squared	0.015	0.799	0.798	0.801	0.803

1-std decrease in two states' ancestral distance associated with an increase of 0.12 alliances, similar to bordering effect

## “Leave out” version of the shift-share instrument

$$Z_{jct} = \frac{1}{PredPop_{ct}} \alpha_{jc} O_{jt}^{-M}$$

- Fraction of immigrants ( $Z$ ) from a sending country ( $j$ ) to a U.S. city ( $c$ ), from 1920 to 1930 ( $t$ ) → ancestral vector to calculate city-pair level distance
- Apportion migration flows ( $O$ ) from  $j$ , induced by WWI and The Immigration Acts of 1920s, net of those eventually settled in  $c$  ( $-M$ )
- Immigrants’ location decision during this period follows pre-existing settlement patterns in 1900 ( $\alpha_{jc}$ ; see Stuart and Taylor 2012)
- City-specific characteristics that determined  $\alpha_{jc}$  didn’t affect subsequent local economic development (Tabellini 2020)
- Instead, the gradual expansion of the railway network during the second half of the nineteenth century combined with staggered timing of immigration from different  $j$  shaped  $\alpha_{jc}$  (Sequeira et al. 2020)
- This instrument captures the supply-push component of the historical immigrant inflows, independent of local demand shocks (e.g., economic conditions in the 1920s and 1930s)

Dependent	(1) <i>count</i>	(2) <i>count</i>	(3) <i>count</i>	(4) <i>count</i>
<i>Ancestral Distance (shift-share)</i>	-2.076** (0.971)	-1.952* (1.053)	-1.980* (1.017)	<i>count</i> >0 -64.823** (28.779)
<i>Same State</i>		0.034 (0.050)		
City FEs	Yes	Yes	Yes	Yes
State-pair FEs			Yes	Yes
Double cluster	Yes	Yes	Yes	Yes
Observations	16,108	16,108	15,892	229
Adjusted R-squared	0.141	0.141	0.117	0.216

- City FEs combined with State-pair FEs absorb many potential omitted variable (e.g., tax)
- Stable coefficients, unaffected by (insignificant) controls
- Limited sample with historical data

# Partner-pair-level analysis: actual vs. counterfactual

	(1)	(2)	(3)	(4)
			<i>High Relationship- specific investment</i>	<i>Low Relationship- specific investment</i>
<i>Ancestral Distance</i>	-0.039** (0.018)	-0.054** (0.022)	-0.062** (0.029)	-0.035 (0.032)

- Ancestral distance negatively correlated with the probability of forming alliance
  - Especially in industries that require relationship-specific investments (Nunn 2007), thus more subject to the hold-up problem
- Counter-factual partners selected on size and industry (or additional entropy balancing on firm characteristics)

## In- vs. out-of-state new venture location

Dependent	<i>Same State</i>	
	(1)	(2)
<i>Ancestral Distance</i>	-0.084*** (0.023)	-0.079*** (0.023)
<i>Border</i>	0.022 (0.018)	0.001 (0.024)
<i>Geographic Distance</i>	0.031*** (0.007)	-0.010 (0.007)
<i>Ind_diff</i>	-0.033 (0.022)	0.018 (0.053)
<i>Female_diff</i>	-3.463*** (0.974)	0.443 (1.836)
<i>Age_diff</i>	-0.004** (0.002)	-0.006 (0.008)
<i>College_diff</i>	-0.521** (0.261)	-0.678* (0.348)
Constant	0.760*** (0.048)	
State FE		Yes
Observations	8,436	8,434
Adjusted R-squared	0.168	0.187

- The decision to locate the new alliance in the same state (or not) as one of the partners (when both partners are not in the same state) depends on the ancestral distance between the partners

## Predicting out-of-state new venture location

Dependent	<i>Actual location</i>		
	(1)	(2)	(3)
<i>Avg. Ancestral Distance</i>	-0.041** (0.017)	-0.032** (0.013)	-0.055** (0.023)
<i>Avg. Border</i>	0.004 (0.005)	0.008** (0.004)	0.003 (0.007)
<i>Avg. Geographic Distance</i>	0.005 (0.003)	0.003 (0.002)	0.007 (0.005)
<i>Avg. Ind_diff</i>	-0.022*** (0.006)	-0.019*** (0.005)	-0.022*** (0.006)
<i>Avg. Female_diff</i>	-0.050 (0.216)	0.167 (0.285)	-0.272 (0.232)
<i>Avg. Age_diff</i>	-0.215** (0.107)	-0.219*** (0.075)	-0.324*** (0.120)
<i>Avg. College_diff</i>	-0.002* (0.001)	-0.001 (0.001)	-0.003 (0.002)
Year FEs	Yes	Yes	Yes
State FEs		Yes	
Deal FEs			Yes
Double cluster	Yes	Yes	Yes
Observations	126,447	126,446	126,447
Adjusted R-squared	0.008	0.060	-0.010

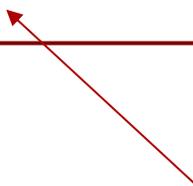
## Ancestral distance and announcement returns

Dependent	(1) <i>CAR</i>	(2) <i>CAR</i>
		Out of state deals
<i>Ancestral Distance</i>	-0.560** (0.260)	-1.115** (0.517)
<i>Border</i>		-0.334 (0.426)
<i>Geographic Distance</i>		0.079 (0.111)
<i>Ind_diff</i>		0.024 (0.197)
<i>Female_diff</i>		-0.088 (0.234)
<i>Age_diff</i>		-0.260*** (0.093)
<i>College_diff</i>		-0.000 (0.062)
Double cluster	Yes	Yes
Observations	901	706
Adjusted R-squared	0.003	0.004

## Ancestral distance between inventors

Dependent	(1) <i>CAR</i>	(2) <i>CAR</i>	(3) <i>CAR</i>
	R&D alliances		Non-R&D alliances
<i>Ancestral Distance_inventors</i>	-0.345* (0.184)	-0.784** (0.393)	0.471 (0.331)
<i>Border</i>		0.019 (1.037)	
<i>Geographic Distance</i>		0.023 (0.122)	
<i>Ind_diff</i>		-0.053 (0.498)	
<i>Female_diff</i>		-0.418 (0.502)	
<i>Age_diff</i>		-0.534*** (0.115)	
<i>College_diff</i>		-0.147 (0.110)	
Double cluster	Yes	Yes	Yes
Observations	292	225	240
Adjusted R-squared	0.001	0.037	0.000

Infer inventors' ancestral  
origins based on their names



## Ancestral distance and social connections between corporate leaders

Dependent= <i>CAR</i>	(1)	(2)	(3)	(4)	(5)
					R&D alliances
<i>Ancestral Distance</i>	-0.545*	-0.530***	-0.540***	-0.530***	
	(0.307)	(0.038)	(0.078)	(0.102)	
<i>Ancestral Distance_inventors</i>					-0.704*
					(0.406)
<i>Same Origin_CEO</i>		0.554***	0.407**	0.323*	0.056
		(0.111)	(0.178)	(0.194)	(0.564)
<i>Ancestral Distance_Board</i>			0.041	-0.176	0.707
			(0.522)	(0.505)	(0.595)
<i>Ties_CEO</i>				-1.725**	-0.213
				(0.682)	(0.753)
<i>Ties_Board</i>				1.887	-2.489**
				(2.404)	(1.023)
Observations	719	719	641	627	203
Adjusted R-squared	0.002	0.005	0.001	0.014	0.001

- Positive (negative) effect from ancestral connections (distance)
- Location- or inventor-based ancestral distance not attenuated by, and distinct from leadership effects
- Leadership social ties have an opposite, negative effect
- Robust to additional firm controls

# Conclusion

- Ancestral connection plays a substantial role in firms' partnering and location decisions, and affects the performance of the alliance
  - Stakeholder channel, distinct from corporate leader channel
- (Supply-push component of) historical immigration as a deep cultural root that mitigates holdups through incentive-alignment
- Ancestral divide may contribute to corporate segmentation in the US
  - Be mindful of cultural frictions in business alliances; promote inclusive culture within organizations and with potential partners