# The Market for CEOs 

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## CEO-firm matching

- Empirical evidence: CEOs matter for firm performance
- Suggests that efficient CEO-firm matching is important
- Models of perfectly competitive \& frictionless matching
- Tervio (2008), Gabaix \& Landier (2008)
- If skill \& firm size complementary $\Rightarrow$ explanation for rise in pay
- Increased demand for general managerial skills
- Murphy \& Zabojnik (2004, 2007), Frydman (2019), Custodio, Ferreira \& Matos (2013)
- Skills become more transferrable $\Rightarrow$ explanation for rise in pay


## This study

- Compare predictions from these (and other) models to CEO hiring patterns
$>$ Prior connections to the hiring firm
$>$ Whether raided from another firm
$>$ Differences in hiring choices across firms
>New CEO pay
- All new CEOs in the S\&P 500 from 1993-2012
- Fewer frictions
- Require CEOs with general skills
$\Rightarrow$ Closest to the competitive and frictionless ideal


## Results

- Most new CEOs have prior connections to the firm
- 80.4\% of new CEOs are insiders
- Larger firms - even more internal promotions, fewer outsiders
- Surprising if firm size and general skills complementary
- $\mathbf{> 9 0 \%}$ of new CEOs are insiders or co-workers of directors
- Sources of outsider hires:
- 3.2\% of new CEOs raided from CEO positions at other firms
- Differences in new CEO pay:
- Outsiders are more expensive than internal promotions
- But: Differences (<\$2m p.a.) small as \% of firm value


## Interpretation \& implications

- Market not well described by models in which all skills are general and all firms choose from one unified pool
- Candidate pool is small and differs across firms
- To match the data: Firm-specific human capital and / or asymmetric learning (?)
- Strong preference for current \& former employees, board members
- ASL needed to explain hiring of "connected outsiders"
- Directors want to know the candidate (and vice versa)
$\Rightarrow$ Pay: rents to be shared, likely increase with firm size


## Insiders vs. outsiders

| All firms (1,256 CEO hires) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Internal promotion | External hire |  |  |  |
| 72\% | 28\% |  |  |  |
|  | Former executive | Board member | Former executive or board member | True outsider |
| As \% of all hires: | 4.0\% | 7.4\% | 8.4\% | 19.6\% |

1993-1999 (418 CEO hires)

| Internal promotion |  | External insider | Outsider |
| :---: | :---: | :---: | :---: |
| $\mathbf{7 4 \%}$ | $7.7 \%$ | $\mathbf{1 8 . 7 \%}$ |  |

2000-2006 (515 CEO hires)

| Internal promotion |  | External insider | Outsider |
| :---: | :---: | :---: | :---: |
| $\mathbf{7 0 \%}$ | $9.3 \%$ | $\mathbf{2 1 . 0 \%}$ |  |

2007-2021 (323 CEO hires)
Internal promotion
74\%
External insider
Outsider
$\square$

| External insider | Outsider |
| :---: | :---: |
| $7.7 \%$ | $18.6 \%$ |

## Outsiders' connections

Connections between boards and new CEO hires

|  | Outsider hires |  |  | Hired elsewhere |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number | $\%$ |  | Number | $\%$ |
| Board connection | 66 | 54 |  | 4 | 3 |
| No board connection | 57 | 46 |  | 119 | 97 |
| Total | 123 |  |  | 123 |  |

* More than $90 \%$ of new LEOs are from the firms' current or former execs, board members, or co-workers of its directors


## Sources of outsiders

Outsiders (246 hires)

|  | $19.6 \%$ |  |  |
| ---: | :---: | :---: | :---: |
| All outsiders | Raided <br> CEO | Raided other <br> executive | Unattached <br> manager |
|  | As a \% of all hires: | $\mathbf{2 . 8 \%}$ | $\mathbf{1 0 . 7 \%}$ |

External insiders (106 hires)

|  | $8.4 \%$ |  |  |
| :---: | :---: | :---: | :---: |
| All external insiders | Raided <br> CEO | Raided other <br> executive | Unattached <br> manager |
|  | As a \% of all hires: | $\mathbf{0 . 4 \%}$ | $\mathbf{1 . 4 \%}$ |

* Only 3.2\% of hires are raided from CEO positions at other firms


## Origin firms of raided hires

|  | Raided other executives |  | Raided CEOs |  |
| :---: | :---: | :---: | :---: | :---: |
|  | N | \% | N | \% |
| Type of origin firm |  |  |  |  |
| US public | 119 | 77.8\% | 32 | 80.0\% |
| US private | 28 | 18.3\% | 6 | 15.0\% |
| Foreign public | 6 | 3.9\% | 1 | 2.5\% |
| Foreign private | 0 | 0.0\% | 1 | 2.5\% |
| Observations | 153 |  | 40 |  |
|  | Mean | Median | Mean | Median |
| Market value | 115,033 | 60,521 | 10,396 | 5,240 |
| Book assets | 73,607 | 30,720 | 7,752 | 4,718 |
| 12m ind.-adj. return | 0.55 | -0.01 | -0.40 | 0.13 |
| 36 m ind.-adj. return | 0.36 | 0.09 | -0.13 | 0.10 |
| ROA | 0.06 | 0.05 | 0.01 | 0.04 |
| Ratio (origin/destination) firm: |  |  |  |  |
| Market value | 11.54 | 4.34 | 0.38 | 0.28 |
| Book assets | 12.90 | 4.23 | 0.31 | 0.24 |

## Hiring firms By insiders vs. outsiders

|  | Internal promotion |  | External insider |  | Outsider |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Mean | Median | Mean | Median | Mean | Median |
| Market value | 27,112 | 11,528 | 21,745 | 9,678 | 15,532 | 9,397 |
| Book assets | 18,557 | 8,511 | 17,323 | 6,619 | 12,449 | 6,771 |
| 12 m ind.-adj. return | 0.09 | 0.00 | -1.66 | -1.20 | -1.09 | -0.37 |
| 36m ind.-adj. return | 0.11 | 0.00 | -0.81 | -0.62 | -0.39 | -0.40 |
| ROA | 0.05 | 0.05 | 0.01 | 0.03 | 0.04 | 0.04 |

## Hiring firms By insiders vs. outsiders

Top quintile


12m ind.-adj. ret.


■ Internal promotion ■ External insider ■ Outsider

Bottom quintile


## Hiring firms: By source of outsider hire

|  | Raided CEO |  | Raided other executive |  | Unattached manager |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Mean | Median | Mean | Median | Mean | Median |
| Market value | 27,189 | 17,289 | 17,478 | 9,219 | 10,799 | 7,304 |
| Book assets | 25,974 | 16,005 | 10,891 | 6,153 | 7,680 | 5,077 |
| 12m ind.-adj. return | -0.53 | 0.03 | -1.14 | -0.14 | -1.26 | -1.32 |
| 36m ind.-adj. return | -0.26 | -0.20 | -0.41 | -0.40 | -0.40 | -0.60 |
| ROA | 0.03 | 0.03 | 0.05 | 0.05 | 0.04 | 0.03 |

## New CEO pay

By insider vs. outsider

Abnormal pay - partial year
Abnormal pay - first full year

|  | Internal promotion |  | External insider |  | Outsider |  |
| ---: | ---: | ---: | ---: | ---: | ---: | :---: |
| Mean | Median | Mean | Median | Mean | Median |  |
| 49 | -560 | 3,496 | 931 | 5,258 | 4,279 |  |
| 12 | -402 | 1,462 | 1,475 | 1,544 | 541 |  |

By source of outsider hire

Abnormal pay - partial year

| Raided CEO |  | Raided other <br> executive |  | Unattached <br> manager |  |
| ---: | ---: | ---: | ---: | ---: | ---: |
| Mean |  | Median | Mean | Median | Mean | Median

## Conclusions

- Firms hire CEOs they are already familiar with
- Current or former executives, current or former board members, executives their directors have worked with
- There is little reallocation of CEOs across firms
$\Rightarrow$ Suggests:
- Firm-specific human capital \& personal contacts are of firstorder importance
- The effective hiring pool differs across firms and is small
- Maybe: rising CEO pay might be explained by CEOs sharing increasing rents from firm-specific human capital

