Discussion of

Network Centrality and Pension Fund Performance

by Rossi et al.

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Outline

Fine and interesting paper. Food for thoughts.

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- Data on UK pension funds, quarterly, 1984-2004:
  - UK Equity
  - UK Bonds
  - International Equities

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- Data on UK pension funds, quarterly, 1984-2004:
  - UK Equity
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  - International Equities
- Determine role of network connections ('degree centrality') of fund managers and consultants on ...
  - risk-adjusted performance
  - fund flows
  - risk taking
  - firing rates

Main results.

- Higher network centrality is associated with ...
  - higher risk-adjusted performance; especially for UK equity
  - larger fund flows; for newly attracted pension fund assets
  - more risky strategy
  - lower firing likelihood

What is the underlying model?

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- Higher centrality $\Rightarrow$ more information $\Rightarrow$ better performance.
- Silent about mechanism: What game is played? What type of learning is assumed?
- Coordination game?
  - Should we see information in this setting as complement or substitute?
  - How many neighbors does it need to adopt a new strategy?
  - Multiple equilibria

Multiple equilibria with complements.

Jackson 2008

- Example: New strategy is adopted when at least two neighbors play it.

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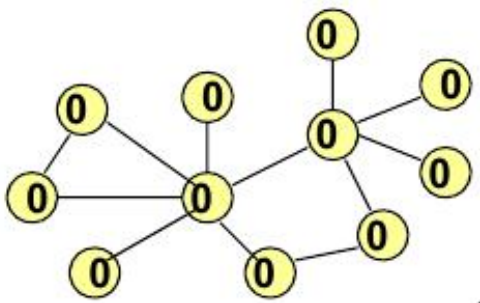

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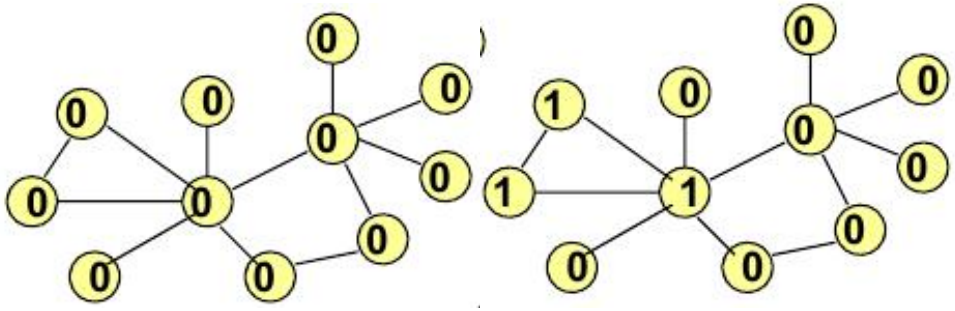

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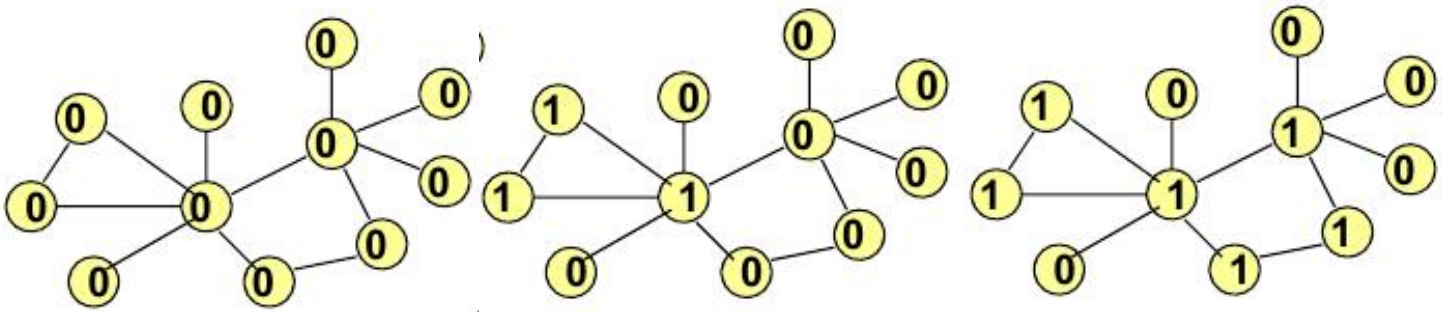

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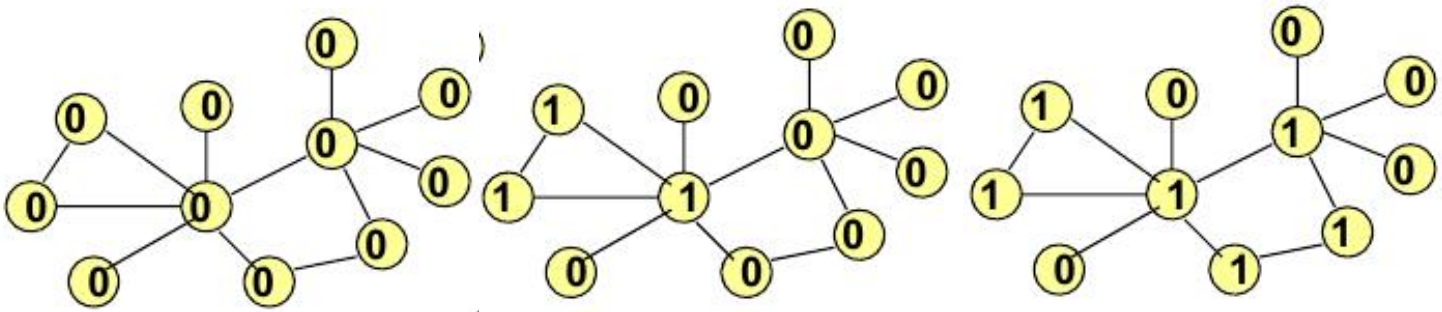

- Relation with centrality? Assume new (better) strategies arrive at random.

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- *Betweenness centrality*: the number of shortest paths which pass through the given node; measure for quantifying the control a node has over information flow in network (see also Burt’s ‘structural holes’).
- *Closeness centrality*: the total geodesic distance from a given node to all other nodes; even far away information reaches node quickly.

Consultants as intermediaries in the network.

- Consultants play an interesting role in analysis, but from a modeling perspective their role is unclear.
- Could they be treated as intermediaries in trade networks?
- Single consultant with several managers; can monopolize information; managers may have an incentive to have direct links to other managers.

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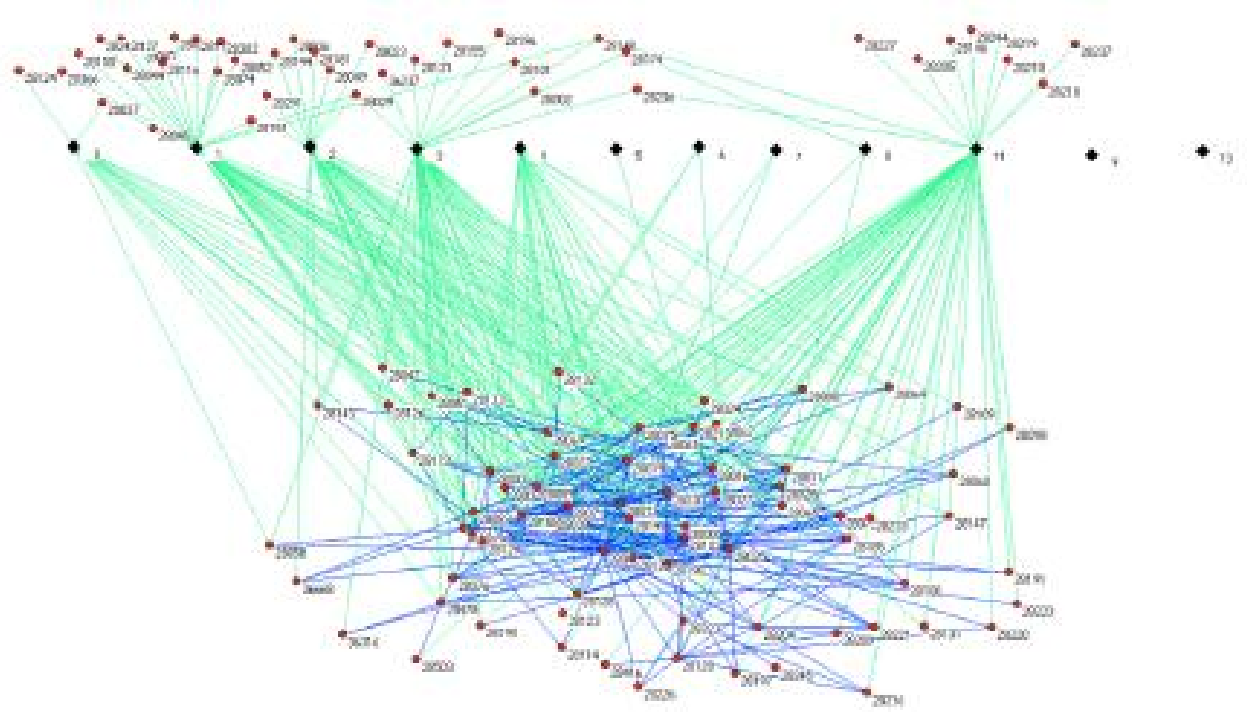

- Do managers who are linked only via consultant do worse?

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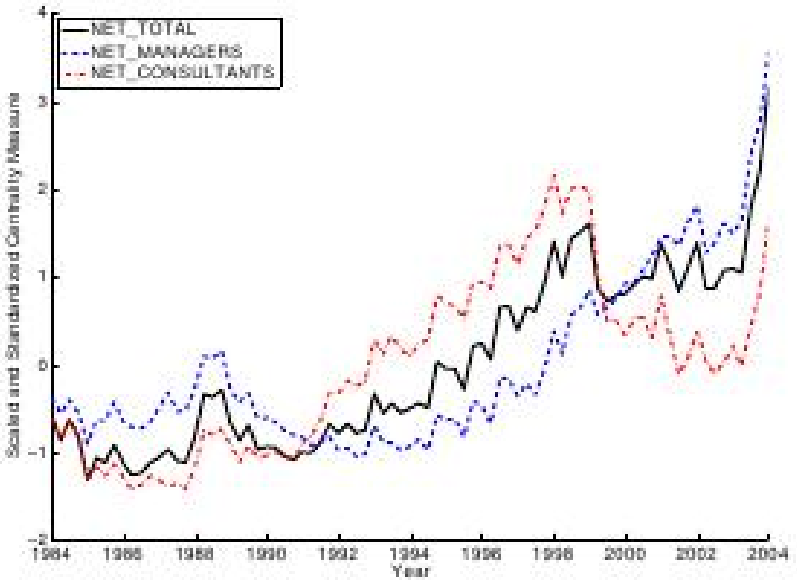
  Role of dummy in analysis is a bit unclear: can one say more about how performance changes for only those managers whose network increased/decreased exogenously?
- Authors are a bit vague on their results regarding Granger causality: " (...) results suggest that performance does not Granger-cause centrality. (...) more central position in the network thus seems to precede (...) performance."

Increase in centrality.

- Does increase in centrality indicate that centrality follows performance?



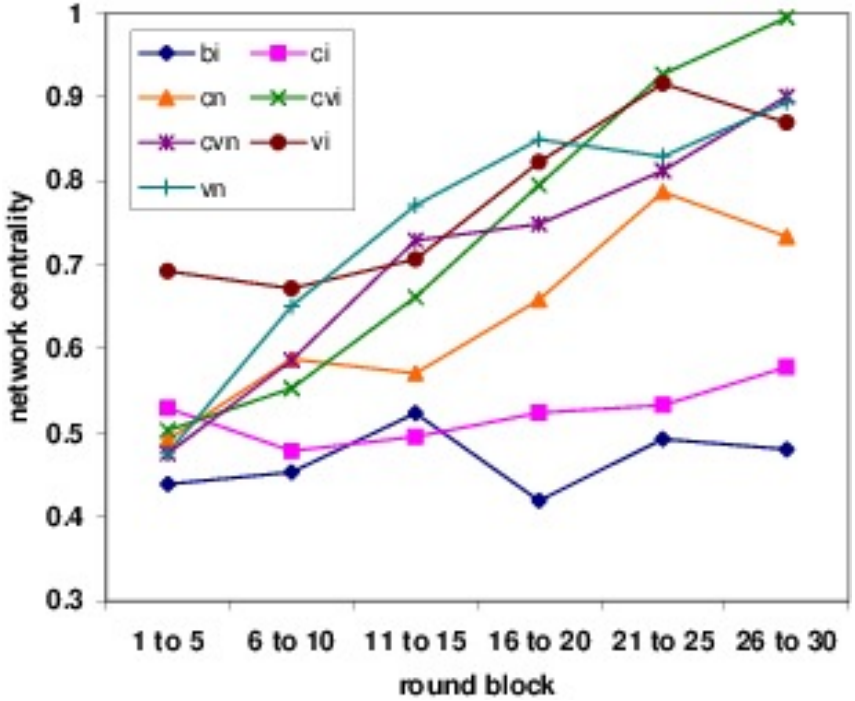
(A) UK equities

- Hard to resolve with the field data.

Learning value of node.

Goeree et al. 2005

- Controlled lab evidence. Learning node's value leads to increasing centrality over time.



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- Is there an explanation for the opposing effects of interacting NET with M_SIZE in UK equity and UK bonds (Table 3). Specifically, how does this square with the 'information flow' story?
- Centrality across asset classes: NET_BONDS negative in UK equity regression but NET_EQUITIES positive in UK bonds regression? (Table 4)
- Also with respect to risk-taking network effects differ between UK equities and UK bonds (Table 9).

- In Introduction it takes a bit long until the reader learns the actual research question.
- Is more information necessarily always better?
- Acemoglu et al. (2011) is not in reference list.
- Why manager and consultant networks are necessarily complementary is not clear; if a managers has information already via another manager a link to the consultant seems redundant.
- The term “connections” is used before it is made clear what is meant with it; same for the use of “centrality”.
- It is stated that networks became (more/less) dense over time; no statistics are reported.
- Reverse inference (p.15): observe different behavior, thus information must be different.

- Would it make sense to also look into the effect of lagged centrality? It is conceivable that – if centrality correlates with better information – this should have a longer lasting effect.
- (p.22): “(...) have do to with (...)”
- Is it an assumption that the merger was not related to investment performance? Where can one see that?
- Risk-taking and centrality: it is not so obvious why more (better) information should lead to more risk taking. Couldn’t managers also learn to take less risk?