

Discussion of  
**“Does Firm Investment Respond to Peer’s  
Investment?”**

by Cecilia Bustamante and Laurent Fresard

Discussion by

**Adair Morse**

**University of California, Berkeley**

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# Positioning the paper

Why do we care about peer effects in investment?

Introduction:

“Deciphering the origins of investment commonality is important since, unlike exposure to common shocks, the presence of peer effects could amplify (or attenuate) the effect of firm-specific shocks within and across industries, and therefore affects the dynamics of aggregate investment.”

# Positioning the paper

Why do we care about peer effects in investment?

“Deciphering the origins of investment commonality is important since, unlike exposure to common shocks, the presence of peer effects could amplify (or attenuate) the effect of firm-specific shocks within and across industries, and therefore affects the dynamics of aggregate investment.”

I will come back to this, but the draft will have a lot more impact **if the writing was framed around some real economy welfare statement** like above with some punchlines.

... give us a new take away welfare implication of why studying investment commonalities matters and/or new aggregate empirical implications.

# Positioning the paper

This is especially true since I think the paper needs to cast its innovation much more in terms of the prior literature, which has already tackled this question

## Prior Literature

- Investment is positively correlated among firms in industry due to common opportunities & over-reaction to peer signals or private information  
Carlsson and van Damme (1993), Camerer and Lovo (1999), Veldkamp (2006), Simonsohn (2010), Greenwood Hanson (2015), Povel Sertsios Kosava Kumar (2015)
- The paper does not give due credit to what has been done and thus figure out what it will be its novel mark

# Paper Organization

I think of the paper as being in 3 parts:

1. Model of information interdependence
2. Main empirics -- IV reduced form estimation of peer effects in investment
3. Splits of the main empirics, where the splits are items correlated (measure of ) with the model tensions.

I am mainly going to focus on 2, not only because it is my strength and also because it is the main contribution of the paper.

In particular, the paper rests on the Bartik-like instrument identification.

**B Moves First – Choosing Investment based on B's Information Set:**

B.I. Info relevant for B only	B.II. Info relevant for A & B but seen only by B	B.III. Info relevant for A & B, seen commonly by both
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**$I_B$**   
(Investment of B)

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$I_B$   
(Investment of B)

**A Chooses Investment based on A's Enhanced Information Set:**

Info relevant for A only	Info relevant for A & B but seen only by A	Info relevant for A & B, seen commonly by both
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Information from  $I_B$

Idea of the instrument is to capture information in  $I_B$  that comes from B.II. And is orthogonal to any information content

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What is the Instrument?

Investment of local firms in B's MSA that are unrelated in industry (or upstream/downstream) to B.

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**Information from  $I_B$**

Comment:

IV cannot pick up anything in B.III. (B.I. is just noise) or anything in A.III..

This is a tall task

Idea of the instrument is to capture information in  $I_B$  that comes from B.II. And is orthogonal to any information content

## IV first stage comment:

- Instrument product market peers' investment with investment of their local firms in other products
- **Relevance** (strong 1<sup>st</sup> stage):

Authors statement: Picks up diffusion, technology transfer or consumption externalities among local, unrelated firms

- Some evidence for this in Dougal, Parsons, Titman (2015)
- Some evidence for networking among social groups (e.g., Shue)

**Comment:** what the Instrument is picking up absolutely matters

- It matters for whether the **exclusion restriction** holds
- It matters because, in my opinion, this is the main novelty that this paper can offer... understanding sources of peer demand signals.
  - And it is a good innovation.

# What the instrument is picking up

I am arguing that the authors re-focus paper to study and speak to the local externalities generating investment spillover.

The authors disagree with my point here,....

“We emphasize that our objective is not to identify the origin and nature of local information externalities.

Instead, we simply use the empirical regularity that such local externalities exist to isolate the variation in the investment of firm B that is unrelated to the private information of firm A, but plausibly relevant for its investment decisions (i.e., contain information about future demand).”

# IV conditions

- Example: Atlanta is HQ to: UPS, Coke, Delta, AGCO (ag equipment), Home Depot, Rubbermaid (kitchen goods manufacturer), Genuine Parts (wholesales auto parts), Mercedes USA (just moved in)
- In presence of MSA, year, and industry fixed effects the IV could be capturing:
  1. **How the demand for goods and services headquartered locally varies over time in a way correlated with firm B's demand**
    - Home Depot, UPS, Coke and Rubbermaid doing well together because the middle class slice of the population that these serve are co-moving
    - Delta, Genuine Parts, UPS, AGCO, and Mercedes doing well with low commodity prices
    - Home Depot and Genuine Parts doing well when interest rate on durables (houses and cars) goes up
- All Imply Exclusion Restriction violated, I think

# IV conditions

- Example: Atlanta is HQ to: UPS, Coke, Delta, AGCO (ag equipment), Home Depot, Rubbermaid (kitchen goods manufacturer), Genuine Parts (wholesales auto parts), Mercedes USA (just moved in)
- In presence of MSA, year, and industry fixed effects the IV could be capturing:
  2. **How the local bundle of firms changes over time such that the demand for the bundle grows at the same pace as firm B**
    - Mercedes moving in is correlated with AGCO and Rubbermaid doing well, because of price of labor in lower wage/non-union states increases in attractiveness in Atlanta.
    - Bundle changes in a way that could imply violation of exclusion restriction

# IV conditions

- Example: Atlanta is HQ to: UPS, Coke, Delta, AGCO (ag equipment), Home Depot, Rubbermaid (kitchen goods manufacturer), Genuine Parts (wholesales auto parts), Mercedes USA (just moved in)
- In presence of MSA, year, and industry fixed effects the IV could be capturing:
  3. **How the technology transfer diffuses locally resulting in shift from labor to capital**
    - UPS and Genuine Parts may have correlated investment because of local technology diffusion.
    - If this is indeed a local network effect, the exclusion restriction might be ok.

# The placebos

- The authors try to address exclusion restriction by selection one-by-one, replacing non-local product market peers by one randomly selected firm that is located in the same MSA as the original peer but operates in an unrelated product market
- This one-by-one analysis has no chance to identify anything simply because of the noise in single firms movements in investment.

# Suggestion

- Use the literature on local agglomeration and characterize which industries have similar exposures that might speak to the stories of how peer effect works

**Empirically... pool sets of peers that isolate (arguably) firms with exposures you were not interested in: Those going after the origin and nature of local information externalities.**

- Some are endogenous... embrace that
- Some are welfare destroying probably
- Some may be legitimate information about markets

Examples –VERY incomplete

- Learning from consumption market that may lead to pressures on inflation & interest rates and thus implications for durables
- Learning from spillovers from goods markets to services (consumption externalities) or vice versa
- What do all of these mean in the re-motivated paper studying implications to the real economy?



# Other comments

- Concern about the y variable versus the controls

$$I_{i,t} = \omega + \alpha \bar{I}_{-i,t} + \varphi' X_{i,t} + \phi' \bar{X}_{-i,t} + \delta' \mu_i + \eta' \nu_{msaxt} + \varepsilon_{i,t}$$

$$\begin{aligned} \frac{CapX_{it}}{PPE_{i,t-1}} = & \text{Instrumented} \left( \frac{CapX_{-i,t}}{PPE_{-i,t-1}} \right) + \\ & + \log(PPE_{it} + IntangAssts_{it}) \\ & + \frac{market_t + PPE_{it} + IntangAssts_{it} - bookEquity_t}{PPE_{it} + IntangAssts_{it}} \\ & + \frac{cashflow_t}{PPE_{it} + IntangAssts_{it}} \\ & + \text{fixedeffects} \end{aligned}$$

- I'd feel better if all the assets were defined at t-1.

# Paper Organization:

## Comments on the other 2 pieces

I think of the paper as being in 3 parts:

1. Model of information interdependence
2. Main empirics -- IV reduced form
3. Splits of the IV reduced form, where the splits are items correlated (measure of ) with the model tensions.

Quick comment on 3:

The splits are still very endogenous, even if the instrument is valid. If you had wanted to use the model to structurally speak to the comparative statics, this section would be stronger.

# Paper Organization

Comment on 1: The model gives us the following:

(i) Shows that firms may respond to other firms' private signals.

(ii) Characterizes conditions for identifying a firm's use of the other firms' signals

i.e., lays out correlation conditions to disentangle common signals from peer effects

# Paper Organization

Comment on 1: The model gives us the following:

(i) Shows that firms may respond to other firms' private signals.

There is a whole literature on modeling signal extraction, herding, etc. such that there is even a survey paper on this Hirshleifer and Teoh (2001).

Agree that it is perhaps useful to lay out the information setting before the empirics, but not much is new here.

# Paper Organization

Comment on 1: The model gives us the following:

(ii) Characterizes conditions for identifying a firm's use of the other firms' signals

i.e., lays out correlation conditions to disentangle common signals from peer effects

But the authors could easily just write that it is difficult empirically to disentangle common signals and peer effects, especially when strategic interaction may imply a competitive feedback or irrational managerial peer-reaction behavior as has been documented by Greenwood Hanson 2015, Povel Sertsios Kosava Kumar 2015

# In Summary

- I am very interested in knowing the source of local externalities and/or non-optimal spillovers in investment
- Innovation here is using the Bartik-like thinking to speak to peer effects. Very nice innovation
- Encourage the paper to push more on the mechanisms and a welfare statement
  - And perhaps back off the statement that all is exogenous, but use agglomeration arguments in peer pooling to get to exogeneity