Discussion of “The Rise of Star Firms: Intangible Capital and Competition” by Ayyagari, Demirguc-Kunt and Maksimovic

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This paper

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\text{rcap}_i, t \equiv \text{earnings}_i, t - \Delta t \equiv p_{90}(\text{rcap}_i, t) - p_{50}(\text{rcap}_i, t)
\]

has tripled since 1990 - related to:

· rising capital share: Karabarbounis and Neiman (2013), Barkai (2019), ...
· concentration/superstar firms: Autor et al. (2019), Grullon et al. (2019), ...
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around the early 1990s. The 90/50 ratio—that is, the ratio of the 90th percentile of the distribution of capital returns to the median—has risen from under 3 to approximately 10. In addition, the dramatic returns on invested capital of roughly 100 percent apparent at the 90th percentile, and even 30 percent apparent at the 75th percentile, at the very least raise the question of whether they reflect economic rents.

Figure 8

The data including goodwill are somewhat less dramatic, as shown in Figure 9. Nonetheless, even on this basis, the variance has risen over time. And more importantly for our purposes, we believe the measure excluding goodwill is more insightful to us, since super-normal operating returns on capital can be partially dissipated in value-reducing acquisitions. Our focus is on the emergence of the high returns in the first place, so excluding goodwill seems more appropriate.

Figure 9

The ROIC measure is not perfect; the treatment of R&D, for example, can cause biases. But it seems unlikely that any such biases have grown so much that they can explain the dramatic trends shown here.
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Why should we care?

\[ \text{rcap}_{i,t} \approx \frac{\Pi_{i,t}}{K_{1,i,t-1}} = \frac{P_{i,t}Y_{i,t} - W_tL_{i,t}}{K_{1,i,t}} \]
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H1 is not benign — clear policy implications

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Findings

1. High rcap, tfirms tend to charge high markups [H1]

2. No increase in rcap, tf dispersion once “adjusted” for intangibles [H2]

3. High rcap, tfirms do not invest less than others [H2]
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   $p^{90}(rcap_{i,t}) \approx 40\%$ and flat
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2. No increase in $r_{cap_{i,t}}$ dispersion once “adjusted” for intangibles $[H2]$  
   $p^{90}(r_{cap_{i,t}}) \approx 40\%$ and flat

3. High $r_{cap_{i,t}}$ firms do not invest less than others $[H2]$  
   at least in $R&D$ — less clear for capex
Comment 1: market power vs. intangibles

Crouzet and Eberly (2019)
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\[ V_t = q_{1,t}K_{1,t+1} + q_{2,t}K_{2,t+1} + (\mu - 1) \sum_{n=1}^{2} \sum_{k \geq 1} \mathbb{E}_t [M_{t,t+k}\Pi_{n,t+k}K_{n,t+k}] \]
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- \( \mu = 1, K_{2,t} = 0: \quad V_t = q_{1,t}K_{1,t+1} \)

Hayashi (1982)

Crouzet and Eberly (2019)
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- \( \mu = 1, K_{2,t} > 0 \): \( V_t = q_{1,t}K_{1,t+1} + q_{2,t}K_{2,t+1} \)

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Hayashi and Inoue (1991)
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- \( \mu > 1, K_{2,t} > 0 \): \( V_t = q_{1,t}K_{1,t+1} + q_{2,t}K_{2,t+1} + \text{rents} \) \( \text{Lindenberg and Ross (1981)} \)
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This decomposition turns out to be very general — see our paper!
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There is always an interaction term — rents attributable to intangibles
$Q_{1-1}$ in the non-financial corporate sector (Crouzet and Eberly, 2019)
Decomposition of $Q_1 - 1$: top 25% of firms by $r_{cap_{i,t}}$
Decomposition of $Q_1 - 1$: bottom 75% of firms by $r_{cap_{i,t}}$
Comment 2: measurement

1. Evolution of rcap differs across industries
   - which industries?
   - define “star” status relative to industry?
   - different mechanisms across industries?

2. sales/cogs is not a good measure of markups, even adjusting for sg&a

   \[ \mu \sim \frac{\text{sales}}{\text{cogs}} + 0.7 \times (\text{sg&a} - \text{r&d}) \]

   (Traina, 2018)

   Walmart: all wages are in sg&a; \( \mu_{\text{Walmart}} = 1.12 \) in 2015

   Costco: only some wages in sg&a; \( \mu_{\text{Costco}} = 1.06 \) in 2015

   \( \mu_{\text{Walmart}} > \mu_{\text{Costco}} \) ?

   Or \( 0.7 \times \text{sg&a too low for Walmart?} \)
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1. Evolution of rcap differs across industries
Sectoral distribution of $\text{rcap}_{i,t}$

- Consumer
- High-tech
- Healthcare
- Manufacturing

- 25th percentile of $\text{rcap}$
- 50th percentile of $\text{rcap}$
- 75th percentile of $\text{rcap}$
- 90th percentile of $\text{rcap}$
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Conclusion

- Interesting facts that speak to an important question
- One size fits all (industries) probably doesn't work
  particularly important for normative implications
- Even within industries, not an either/or story
  qualitative statements are useful ...
  ... but quantifying contribution of rents vs. intangibles would be even better!

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