



# Discussion of “The Rise in Profits and Fall in Firm Entry”

Van Vlokhoven (2024)

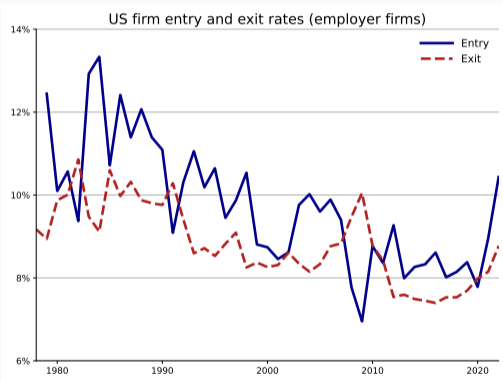
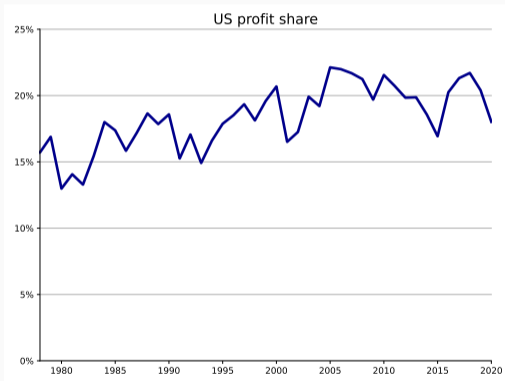
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Luis Pérez  
([luisperez@smu.edu](mailto:luisperez@smu.edu))

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## ► Puzzling to observe rise in profits alongside a decline in firm entry



Sources. Hasenzagl and Perez 2023 based on US Compustat (left) and Business Dynamics Statistics (right)

- ▶ Puzzling to observe rise in profits alongside a decline in firm entry

$$\underbrace{c_e}_{\text{entry cost}} = \mathbb{E} \underbrace{\sum_a \beta^a \Pi_a}_{\text{present DV of firm}} \quad (\text{Free entry})$$

- $\uparrow$  profits,  $\uparrow$  value of having a firm
  - $\downarrow$  value of having a firm,  $\downarrow$  entry
- ▶ **Two possibilities:** 1) rising entry costs; 2) changes in the firm's life cycle
  - ▶ **VV's idea:** Rise in back-loadness of profits could explain these two trends
    - Back-loadness in profits: profit-age gradient has become steeper over time (ie, old firms make relatively more profits now and young firms less than in the past)
    - Because of discounting, value of firm is lower yet profit share rises over time

## What this paper does

- ▶ **Build model of entrepreneurial dynamics in the tradition of Hopenhayn 1992**
  - With time-varying markups + special form of intangible capital (ie, brand value)
  - Formalize idea of increase in back-loadness of profits through brand value
    - Consumers prefer goods with higher brand value
    - Firms invest in brand value, which is accumulated similar to physical capital
    - Because building brand value takes time, older firms earn more profits
- ▶ **Calibrate model to match empirical moments in US data**
- ▶ **Use model to understand dynamics in firm entry and aggregate profits**
  - Move parameters (sensitivity, depreciation rate & productivity of brand value) to see if these can explain trends of interest

- ▶ **Main finding:** model rationalizes rise in profits and fall in entry with lower depreciation rate of intangibles
  - Lower depreciation rate leads to more back-loaded profits
  - Older firms accumulate more intangibles and thus face higher demand
  
- ▶ **Why are these findings interesting?**
  - Literature emphasizes technology story, one in which fixed costs rise over time
  - **Van Vlokhoven highlights demand story**, one in which firms influence demand via intangible investments
  - Demand story could have different policy implications than technology story

- ▶ Explain key mechanism
- ▶ Two points:
  1. Hard to argue in favor of proposed mechanism
  2. No possibility for changes in technology over life cycle may lead to overstate importance of proposed mechanism

And offer some suggestions to (partially) address these concerns

- ▶ My take

# Model and Mechanism

## Model and key mechanism

### ► Representative household:

- Supplies labor inelastically in competitive market
- Gets profit income from ownership of firms
- Spends all income in final good each period

### ► Final good aggregates $N$ varieties $\omega$ with brand value $\chi$ :

$$\int_0^N \chi(\omega)^\psi \Upsilon \left( \frac{y(\omega)}{Y} \right) d\omega = 1 \quad \text{where} \quad y(\omega) = z l_p^\eta$$

- $\psi$  governs sensitivity of demand to brand value  $\chi(\omega)$
- $\Upsilon$ : Kimball aggregator

Brand value shifts out the demand curve



## Model and key mechanism

The problem of a firm with productivity  $z$ , brand value  $\chi$  and age  $a$ :

$$V(z, \chi, a) = \max \underbrace{p(z, \chi)y(z, \chi) - wl_p(z, \chi)}_{\text{gross profits}} - \underbrace{wl_\chi + wl_o}_{\text{Intangibles and overhead}} + \beta(1 - \delta_a)\mathbb{E}_z V(z', \chi', a')$$

$$\text{s.t. } \log(z_{a'}) = \rho_a + \rho_z \log z_a + \xi_a$$

$$\chi_{a'} = (1 - \delta)\chi_a + \nu l_{\chi_a}^\phi$$

$p(z, \chi), y(z, \chi)$  set optimally given demand, a function of  $\chi$

- ▶ **Key mechanism:** With lower  $\delta$ , firms accumulate more intangibles over time. This favors older firms and leads to more back-loaded profits.

# Some Thoughts

## ► Point 1: Hard to argue in favor of proposed mechanism

(I.e, more back-loaded profits due to decline in depreciation rate of brand value)

1. Nobody knows what the depr. rate of brand value is; much less how it evolved
2. Much empirical evidence for competing explanation: rising fixed/entry costs

(De Loecker et al 2020, Gutierrez et al 2021, Hasenzagl and Perez 2023, De Ridder 2024, ...)

► See

- More back-loaded profits also consistent with more front-loaded costs
- Firms may incur higher costs early on and make profits later in life

→ **New mechanism bears burden of proof: need supporting empirical evidence**

- **Suggestion 1:** Model implies monotonic relationship between brand value and firm age. Show this is indeed the case.
  - Eg, look at ratio of stock market cap. to value of physical assets over life cycle. Older firms should have higher ratios

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- **Suggestion 2:** Show growth rate in ratio of stock market cap. to value of physical assets has accelerated over time, consistently with fall in depreciation rate
  - I.e., firms accumulate brand value faster when depreciation rate of intangibles falls

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- **Suggestion 3:** Show growth rate in ratio of stock market cap. to value of physical assets has accelerated more in sectors with larger marketing investments
  - Do the same for firms within given sectors

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- **Suggestion 4:** Show sectors with larger marketing investments experience higher rises in profit shares
  - Same should be true for firms within sectors

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- **Suggestion 5:** Calibrate model for sectors w/ rising profit shares, declining entry rates, and different marketing intensities
  - Look at required fall in depr. rate of intangibles in different sectors; hard to argue for wide differences in this depreciation rate

## Some thoughts

- ▶ **Point 2: No possibility for changes in technology over firm's life cycle lead to overstate importance of proposed mechanism** (Eg, changes in returns to scale)
  - Hasenzagl and Perez 2023 show rising returns to scale in the US over time
  - Such a rise partly reflects technological change
  - IO literature provides clear evidence of this at the industry level (Miller et al 2022, Ganapati 2021, ...)
- How much of the fall in entry and rise in profits explained by returns to scale changing over life cycle?
  - Model doesn't capture any of this given current calibration
- **Suggestion:** Calibrate model with empirical values of returns to scale/overhead costs in two periods, see how much left to explain by falling depr. rate of intan.



My Take

- ▶ Very interesting paper studying macro trends at forefront of policy debates
- ▶ Van Vlokhoven emphasizes demand story for rise in profits and fall in entry
  - He argues that fall in depreciation rate of intangibles can explain joint trends
  - Literature so far mostly focused on technology story, one where fixed costs rise (De Loecker et al 2020, Gutierrez et al 2021, Hasenzagl and Perez 2023, De Ridder 2024, ...)
- ▶ **Neat point + empirical evidence pointing to rise in profit back-loadness**
  - But more back-loaded profits could be explained by competing explanation
- ▶ **More work needed:**
  - + Empirical evidence in favor of proposed mechanism
  - + Extend/re-calibrate model to accommodate competing explanations
  - + Think about policy implications of two stories

Questions?

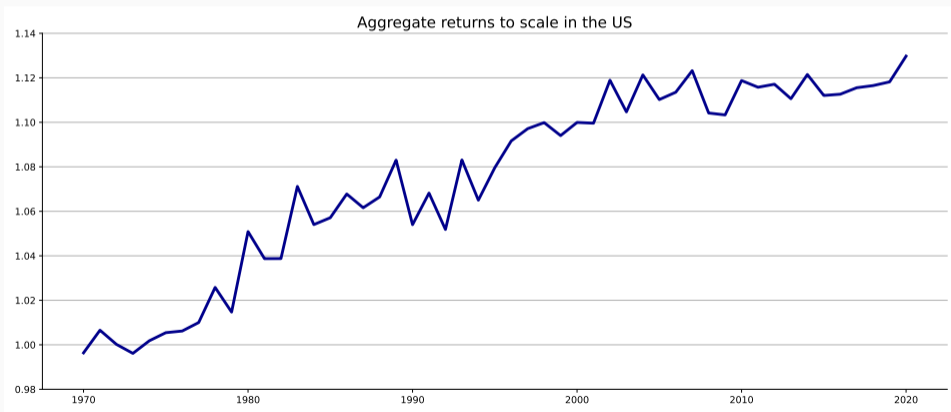
# Thank You!

(Email: [luisperez@smu.edu](mailto:luisperez@smu.edu))

(Website: <https://luisperezcon.com>)

# Empirical evidence in favor of rising fixed/entry costs

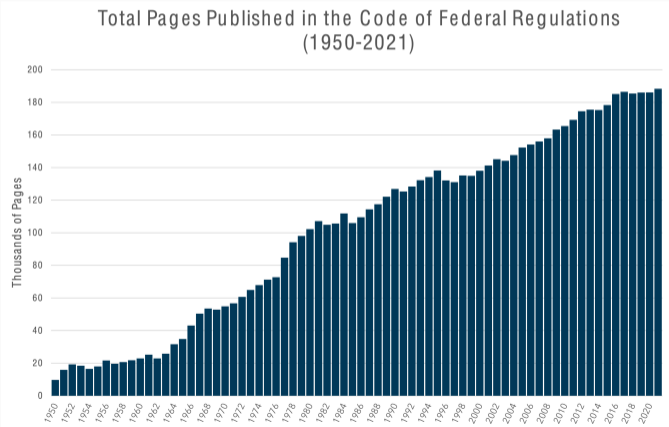
Hasenzagl and Perez 2023 (and De Loecker et al 2020, De Ridder 2024 and others) provide empirical evidence of rising fixed/entry costs



Source. Hasenzagl and Perez 2023

# Empirical evidence in favor of rising fixed/entry costs

Increase in volume of regulatory text points to rising fixed/entry costs [▶ Back](#)



Source. Regulatory Studies Center, The George Washington University