Impact of Private Equity

Ayako Yasuda
University of California, Davis

June 4, 2022
Nippon Finance Association
The 30th Anniversary Annual Conference

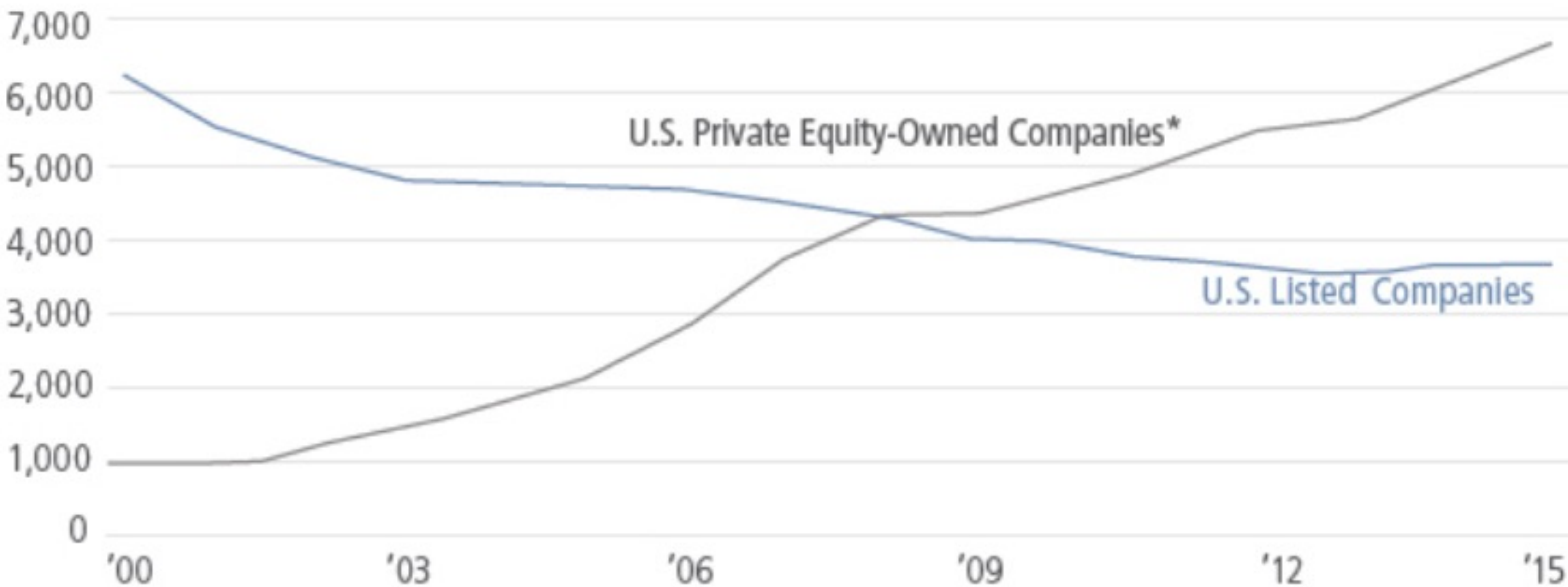
Two Questions

1. How does PE ownership affect company behavior, and how does that impact the broader economy and the environment?
2. What goals do investors pursue with ESG/impact investing, and is PE ownership a potential solution?

Sources:

- “Impact Investing” (with Brad Barber and Adair Morse), 2021, *Journal of Financial Economics* 139, 162-185.
- “Impact of Private Equity” (with Morten Sorensen), forthcoming in *Handbook in Economics: Corporate Finance 1 Private Equity and Entrepreneurial Finance*, Elsevier Publishing.

Why Private Equity

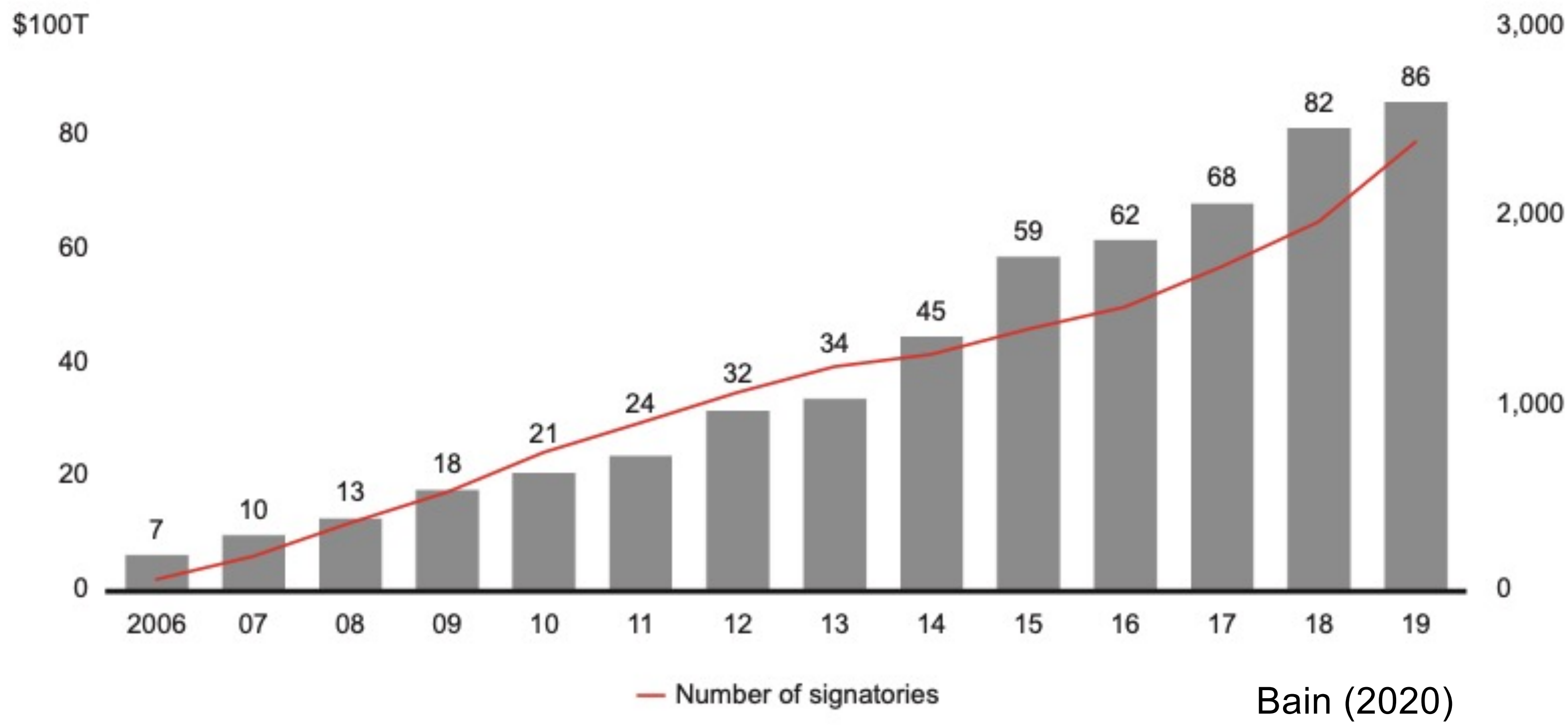


Tutrone (2017)

As PE owns more of the economy, what impact will it have on the society as a whole?

Why ESG/Impact Investing

Assets under Management of UN Principles of Responsible Investment Signatories



Bain (2020)

What do investors behind $100 Trillion want to do with their financial muscle?

What's your ESG/impact type?

Satoru: "I object to gun violence. It bothers me if a mutual fund I hold in my retirement account invests in shares of a gun manufacturer."

Izumi: "I feel passionate about making access to mental health care more equitable. I flex my financial muscle to back startups that promise to make this happen."

Eriko: "I sense a huge shift in our entire economic system toward decarbonization and want to climate-proof my investment portfolio against stranded asset risk."

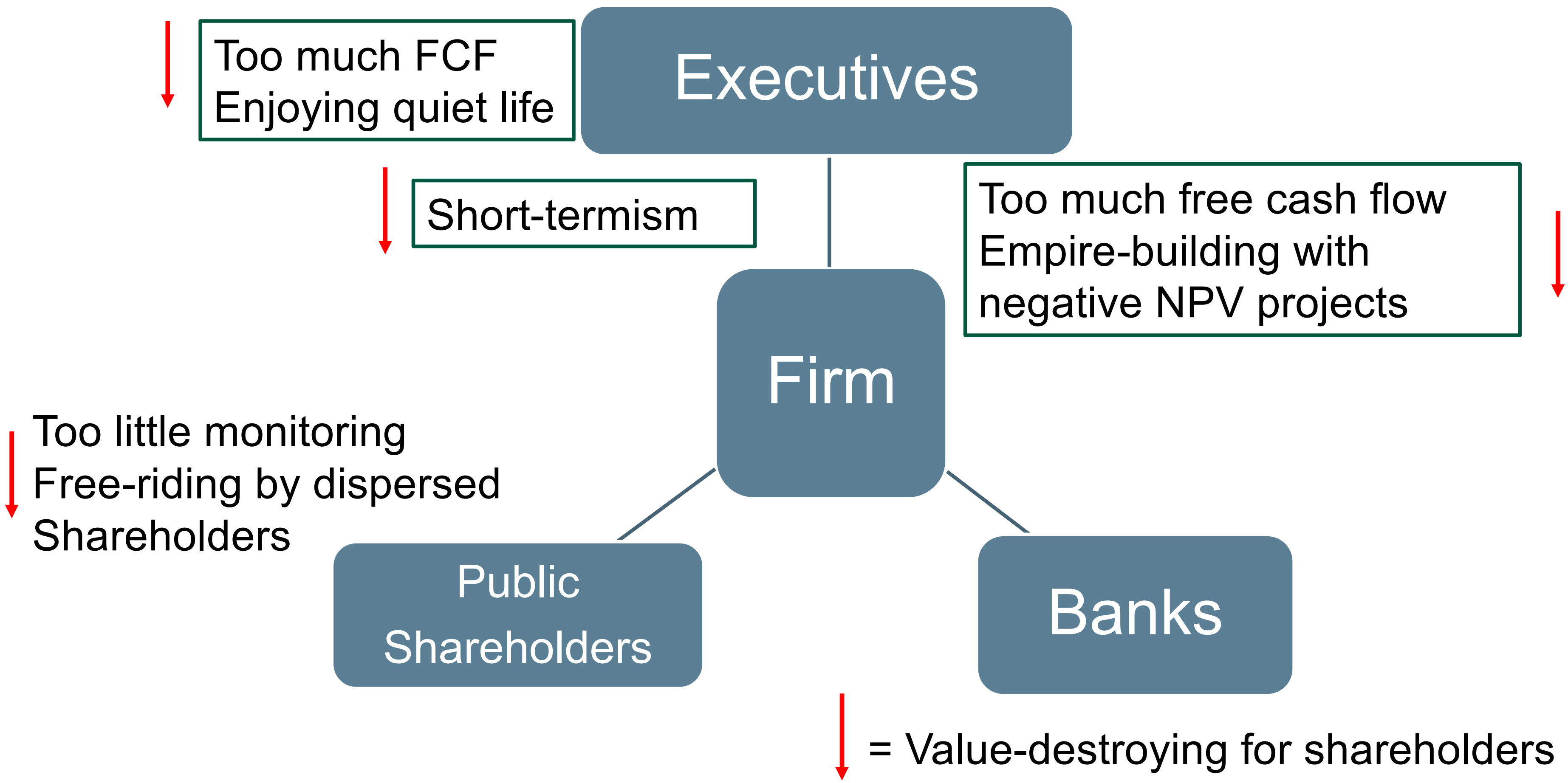
Do you resonate with Satoru, Izumi, or Eriko?

Preview of Insights

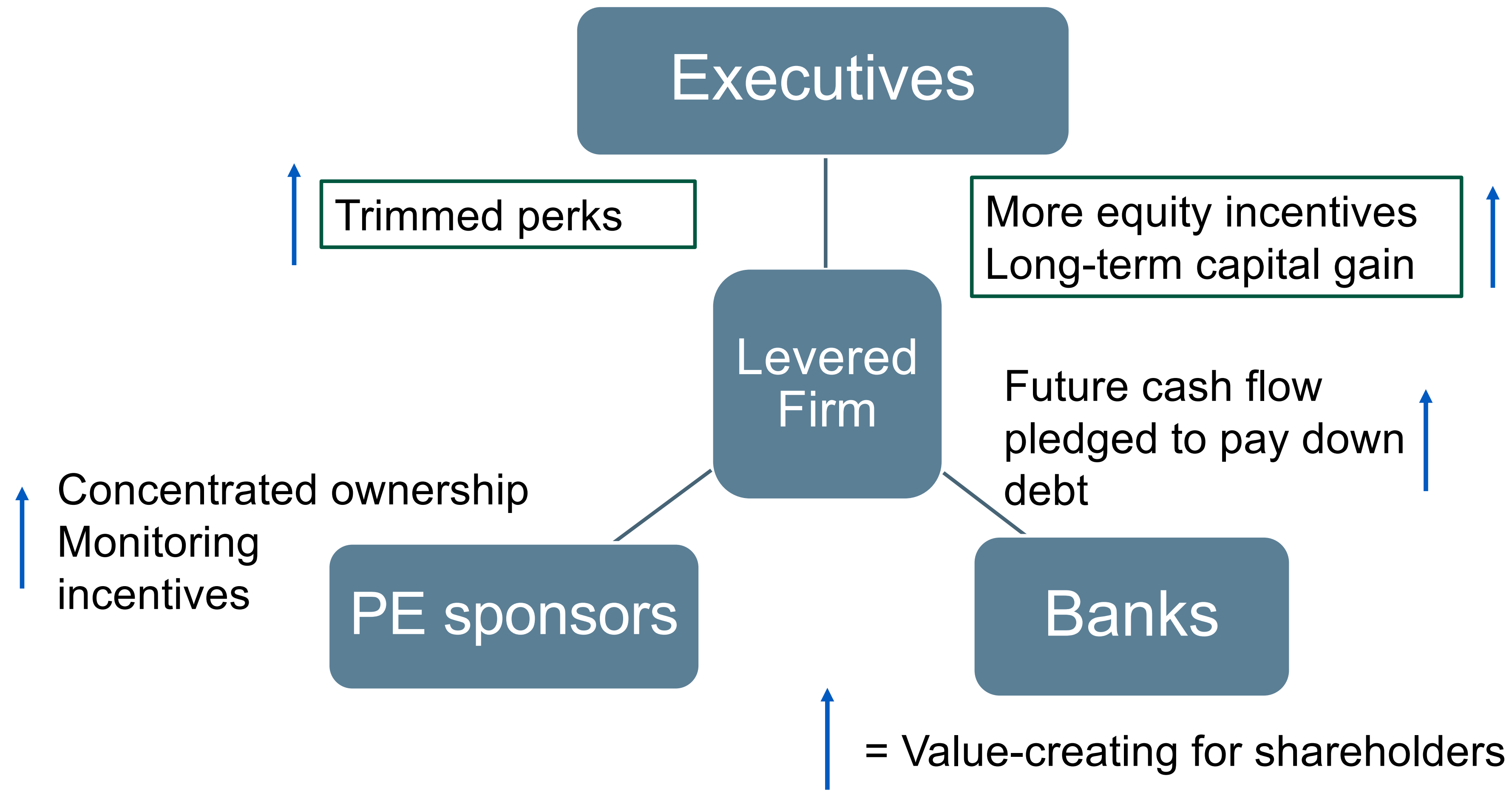
1. Private Equity amplifies both the good and bad of capitalism
   - Public-to-private buyouts result in net job loss / higher price
   - Private-to-private buyouts benefit workers/consumers with growth and better management skill
   - PE in regulated/subsidized industries tend to make market failure worse, harming customers, taxpayers and the environment
   - PE in competitive industries tend to improve consumer welfare
2. PE/VC impact fund structure better aligned with pro-ESG investors' goals than public ESG funds/ETFs
   - Distinction between ESG-aware and Pro-ESG is key

Principal-agent problems with public corporations

Jensen (1986,89)

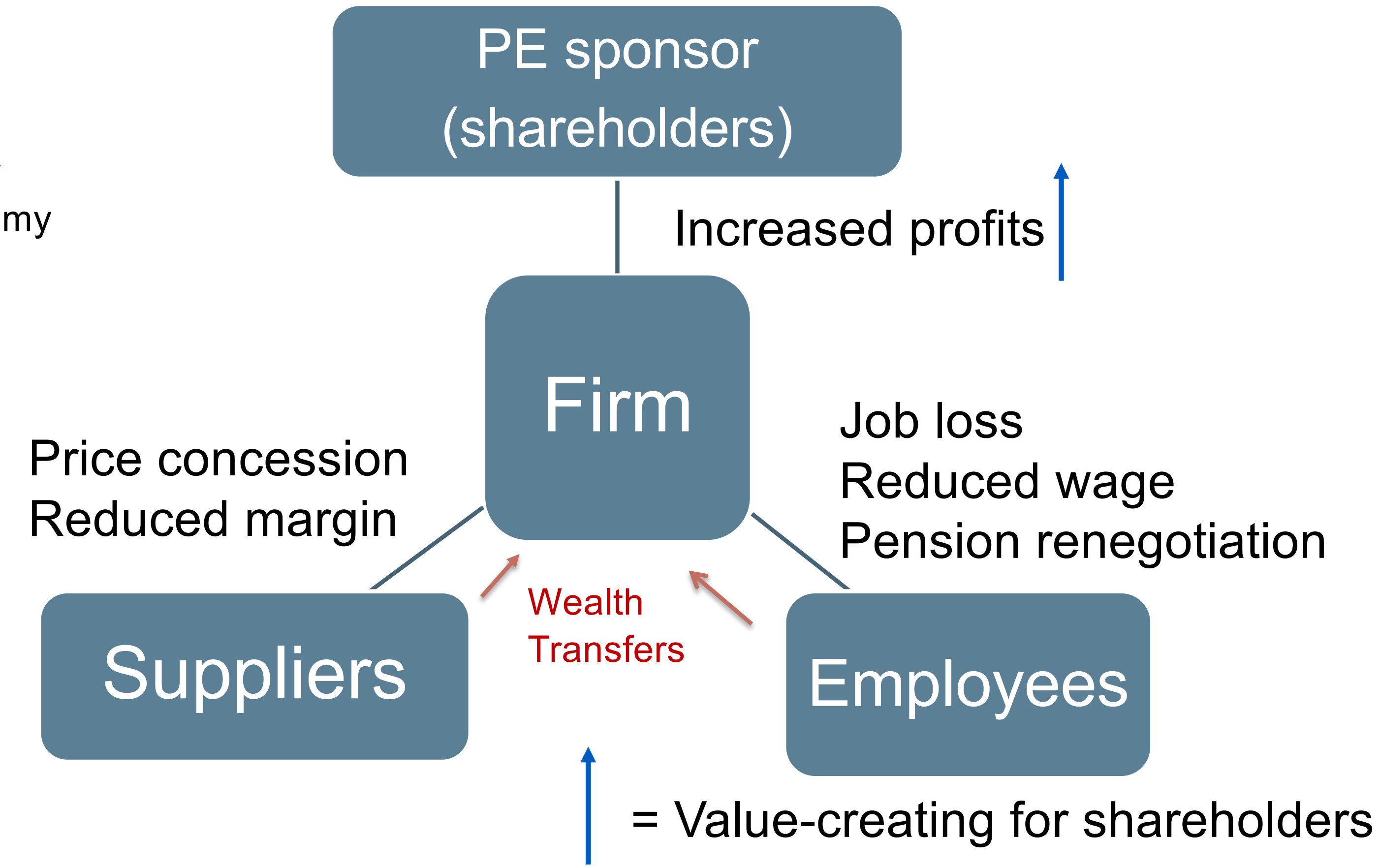


Jensen (1989) argues private equity ownership creates efficiency gains “win-win”



Shleifer and Summers (1988) emphasize PE often creates value for shareholders at the expense of other stakeholders

Also a negative spillover effect on the local economy (e.g., factory closures)



Jensen (1989) vs. Shleifer and Summers (1988): NOT a Dichotomy

Suppose social welfare = shareholder welfare + stakeholder welfare

- Jensen (1989) assumes loss of stakeholder welfare is minimal and short-run, thus:

  shareholder gains ≈ social welfare gains   "Win-win"

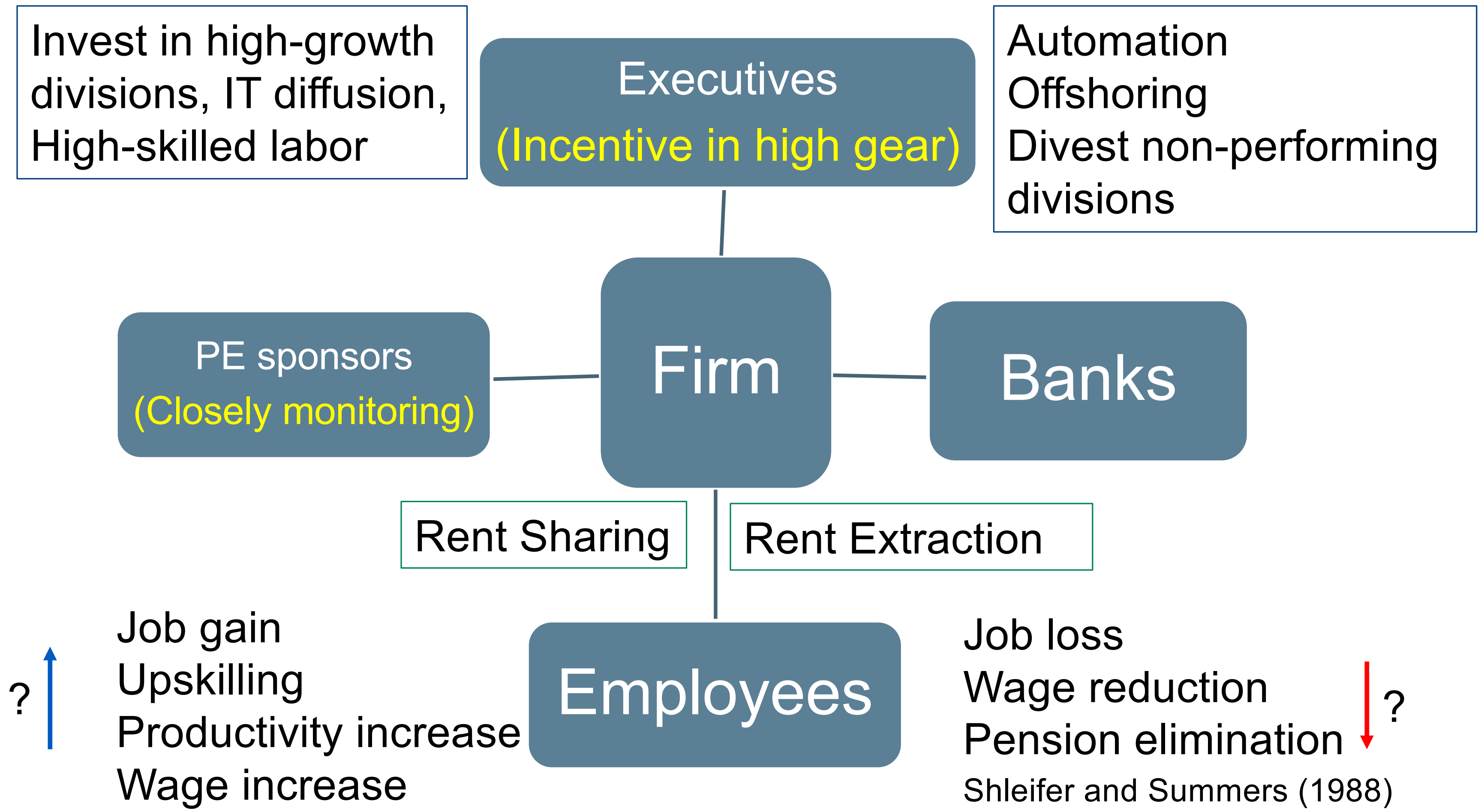
- Shleifer and Summers (1988) assume wealth transfers dominates and efficiency gains insignificant, plus potential negative spillover (externality), thus:

  stakeholder loss > shareholder gains

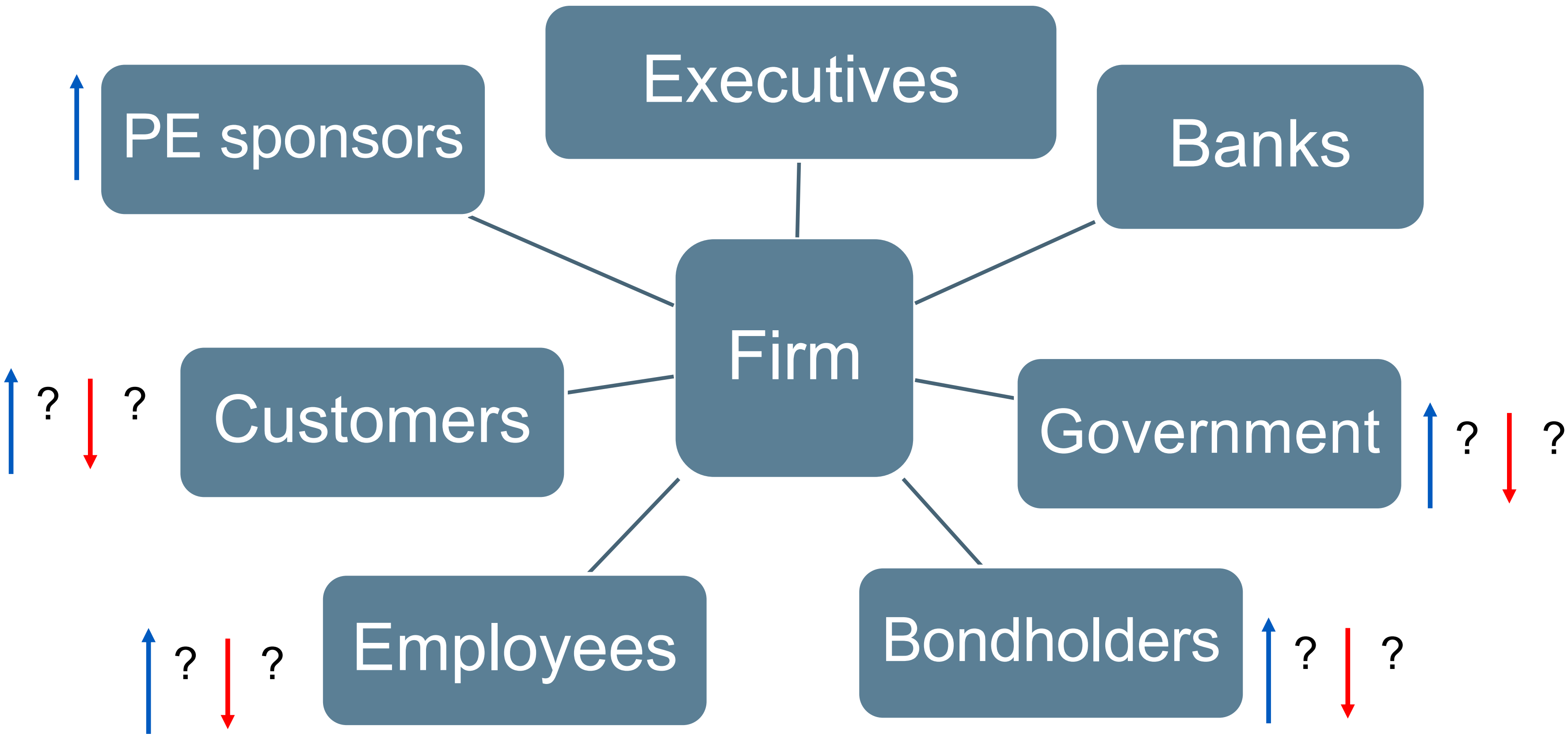
  social welfare ↓

- Neither paper systematically studies ***actual*** impact of PE ownership
- Sweeping generalization about private equity being "Good" or "Bad" for the society cannot be right all the time
- Both positive and negative impacts of PE can be simultaneously present

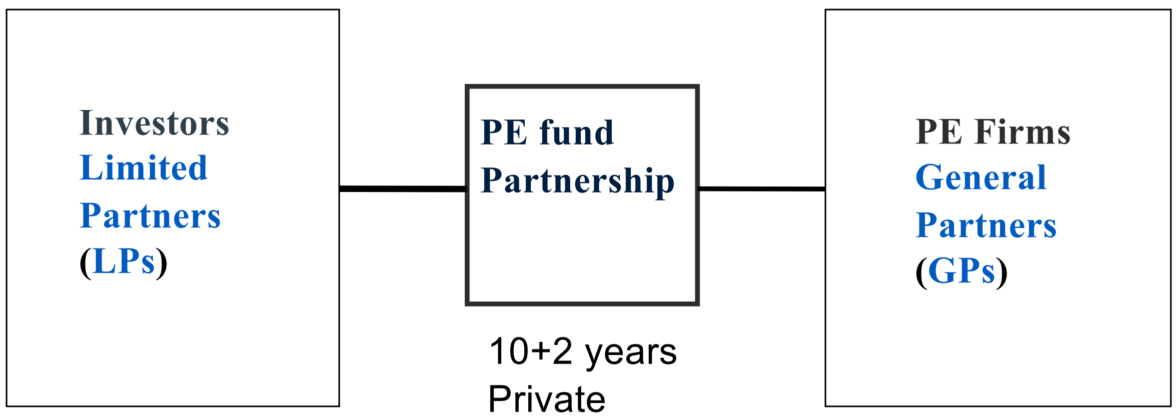
Impact on Stakeholders: Example



Ambiguous value implication for stakeholders



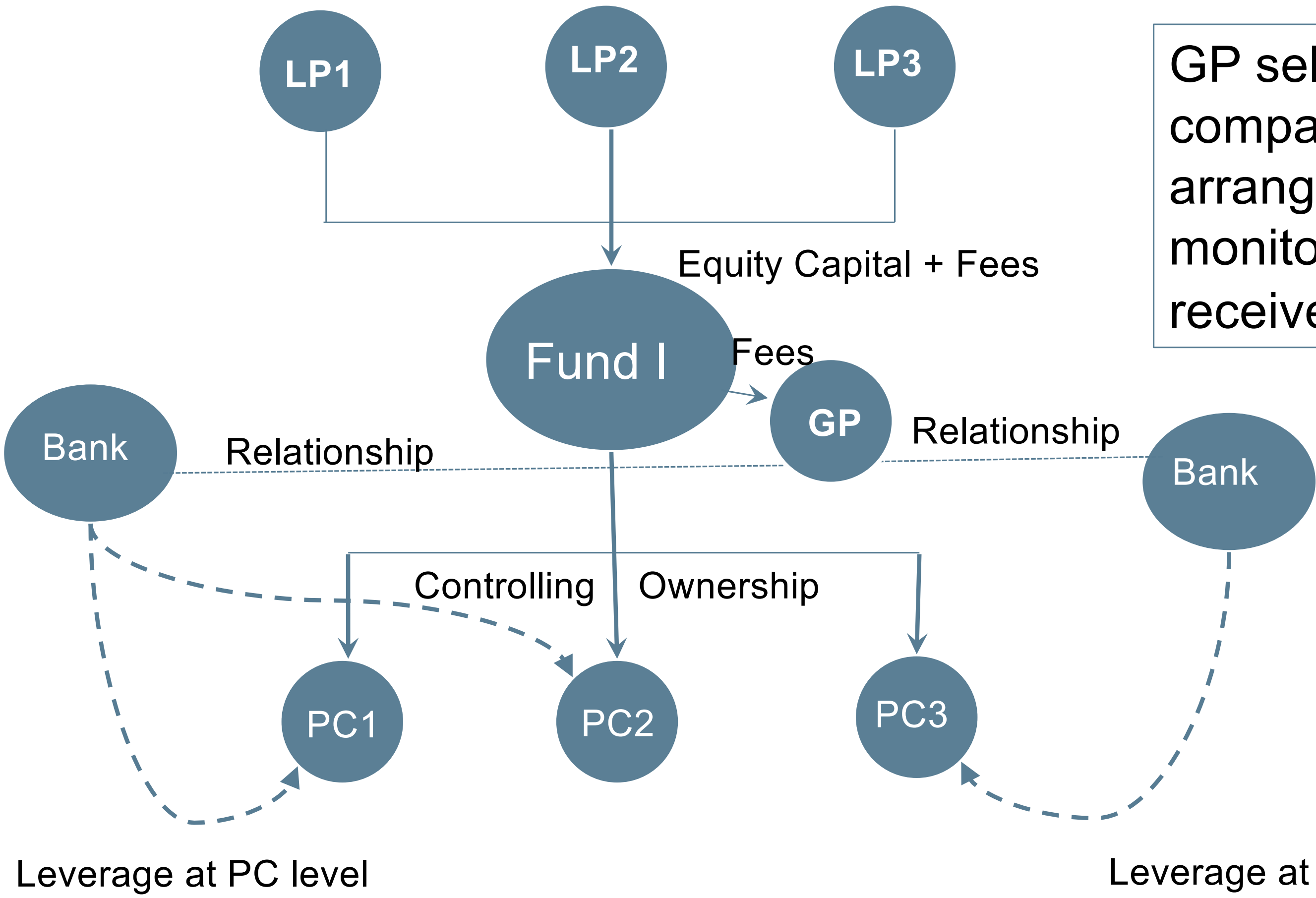
A PE Fund is Organized as a Limited Partnership



10-year
commitment
Re-up for next fund
if satisfied

10+2 years
Private

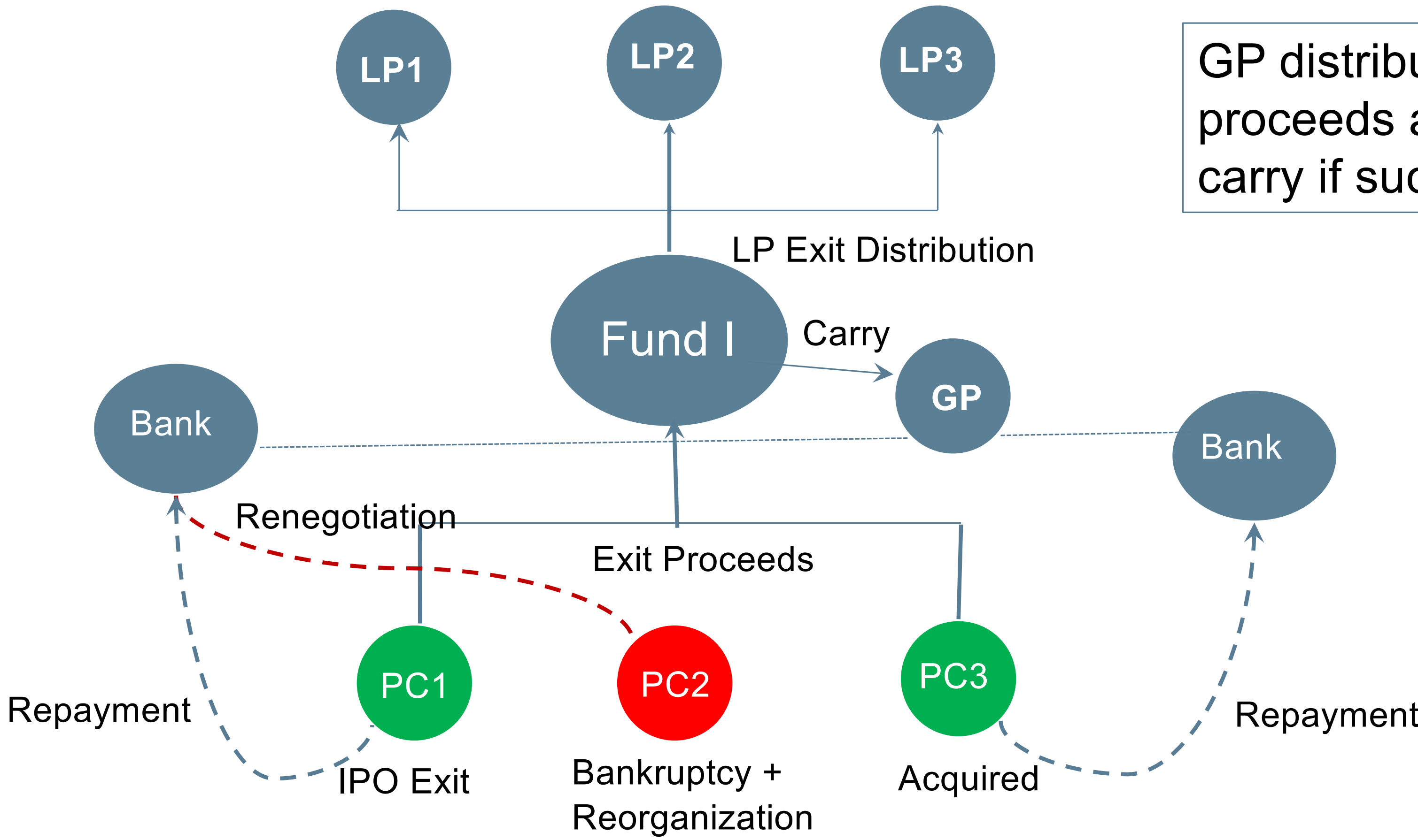
Evergreen entity
private or public

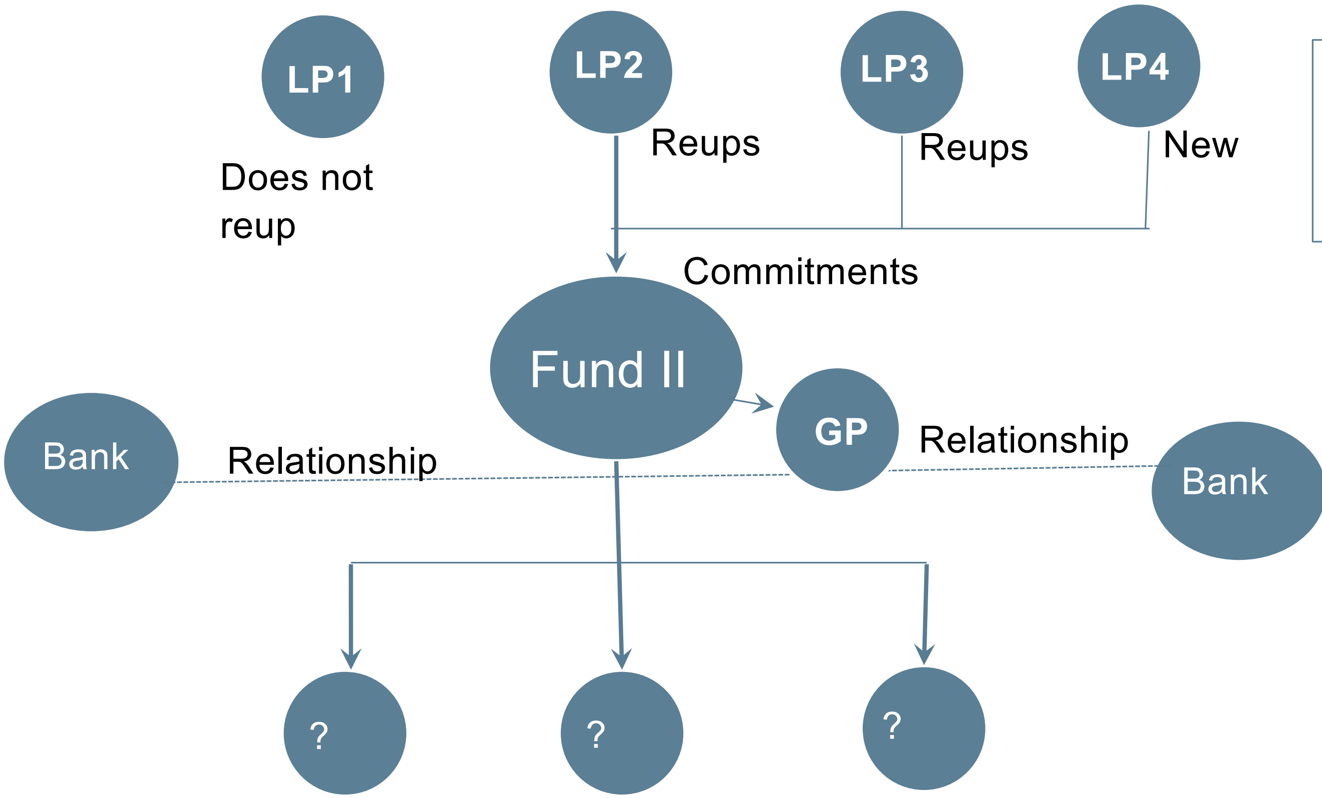


GP selects portfolio companies (PC), arranges debt financing, monitors performance, receives fees

Private Equity as Funds

GP distributes exit proceeds and receives carry if successful



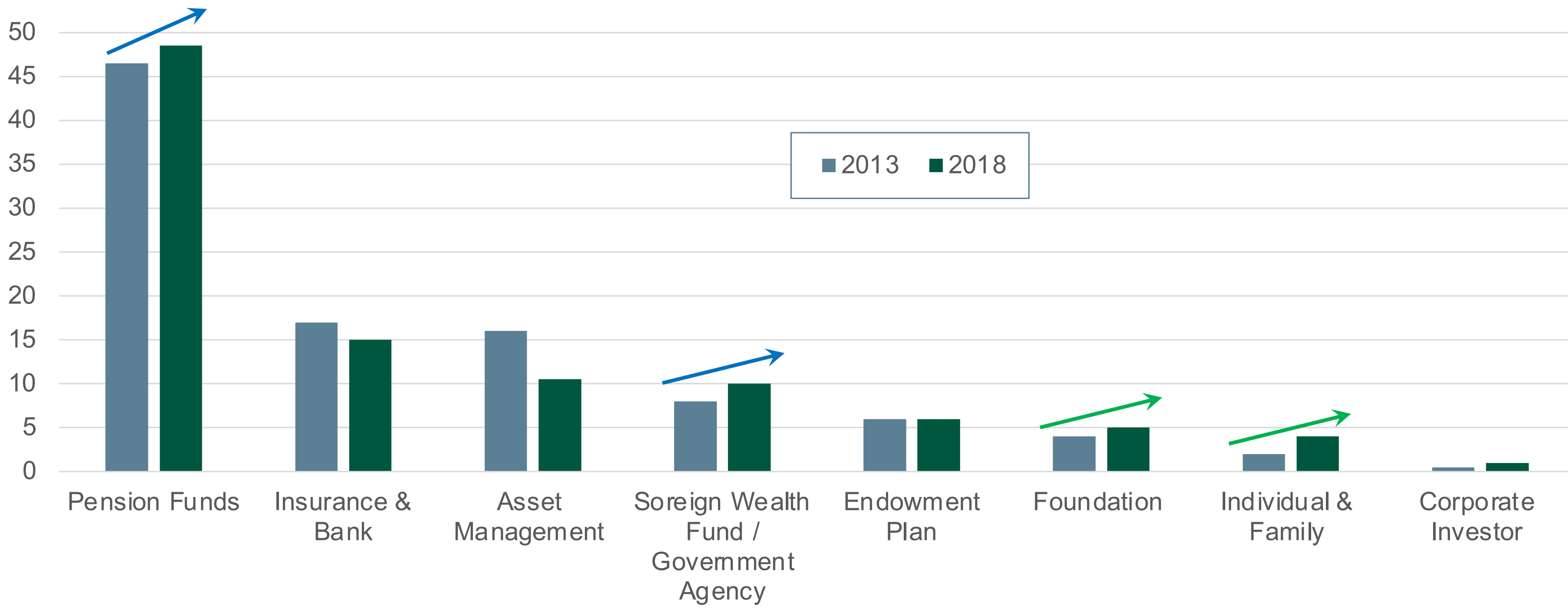


GP raises next fund if successful
Start over again

Limited Partners as Principal for PE

- LPs' **objectives matter** – affects fundraising
- GPs' objective: to maximize fee + carry in current fund + PV of revenues from **future funds**
  - Gompers and Lerner 1999, Metrick and Yasuda 2010, Chung, Sensoy, Stern, Weisbach 2012
- If LPs' objectives change, GPs' rational response is to cater to the changed objectives for its own survival and longevity
- LPs' interest in ESG/Impact investing has grown

Who invest in private equity



Public money comprise 45% of PE source of funds (35% public pension, 10% SWF)
Another 9% from foundations and HNWs (and growing).

Preqin.

ESG-Aware vs. Pro-ESG

Source of Tension and Confusion

3 ESG/impact types

Satoru: “I object to gun violence. It bothers me if a mutual fund I hold in my retirement account invests in shares of a gun manufacturer.”

Izumi: “I feel passionate about making access to mental health care more equitable. I flex my financial muscle to back startups that promise to make this happen.” “Pro-ESG”

Eriko: “I sense a huge shift in our entire economic system toward decarbonization and want to climate-proof my investment portfolio against stranded asset risk.” “ESG-aware”

Pedersen, Fitzgibbons, Pomorski (2021)

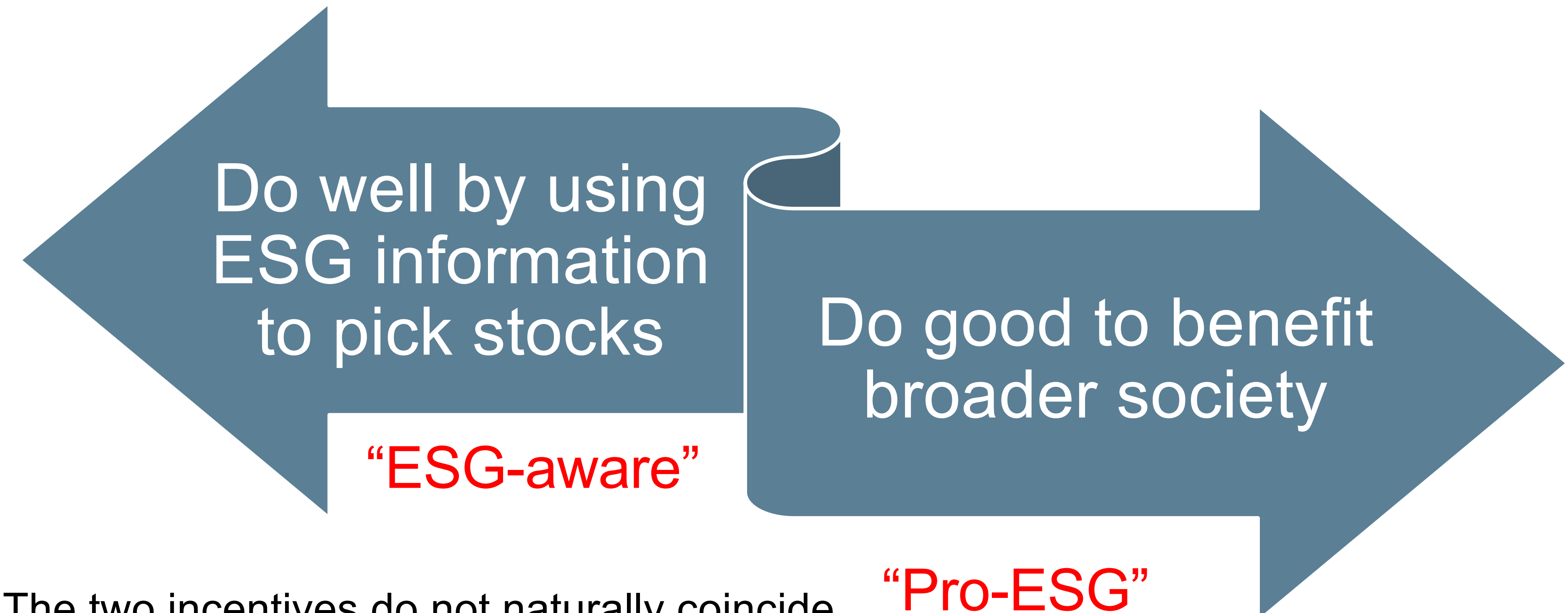
Why – What – How

Satoru wants to….	Alleviate conscience	Socially Responsible Investment (SRI) Fund	Negative screening Divestment
Izumi wants to….	Allocate to solution	Impact Fund Activist ETF	Impact startups Proxy campaigns
Eriko wants to….	Avoid risk	Passive ESG Fund /ETF	Hold high ESG-rating stocks Re-balance portfolio

“Pro-ESG”

“ESG-aware”

A dilemma between two investor motivations



The two incentives do not naturally coincide
Fund managers often mix up the two

Materiality vs. Impact in Sustainable Finance

"Material" in the accounting sense

Materiality-based ESG (ESG-aware)

Investment strategy that incorporates ESG factors that could affect a company's financial performance.

The focus is **sustainability (durability) of the company**.

Goal is singular - financial bottom-line

ESG ratings measure what's relevant for this.
MSCI, Sustainalytics, Moody's, S&P, Refinitiv

Impact Investing (Pro-ESG)

Investments made with the **intention** to generate positive, measurable social and environmental impact alongside a financial return.

The focus is **sustainability (health) of the broader society and the environment**.

Goal is dual – both return and impact

GIIN (Global Impact Investing Network) leads impact metrics standardization

ESG-aware vs. Pro-ESG

- ESG-aware sustainability is survivalist: “If the world is on fire and the government imposes carbon tax, my portfolio will not lose as much value because it consists of stocks with relatively low carbon footprint”
- Pro-ESG sustainability is communal: “My portfolio allocates capital to companies actively aiming to curb temperature rise so that we can save our planet for the future generation.”
- They both serve purposes. Eriko would want ESG-aware sustainability, and Izumi would want pro-ESG sustainability in their respective portfolios. The two portfolios will look different.

The UN Principles for Responsible Investment (PRI)

"As institutional investors, we have a duty to act in the best long-term interests of our beneficiaries. In this fiduciary role, we believe that environmental, social, and corporate governance (ESG) issues can affect the performance of investment portfolios…"

Pro-ESG or ESG-aware?

"We also recognize that applying these Principles may better align investors with broader objectives of society. Therefore, where **consistent with our fiduciary responsibilities**, we commit to:

Pro-ESG or ESG-aware?

1. Incorporate ESG into investment process
2. Incorporate ESG into polices as corporate owners
3. Seek ESG disclosure from investees …"

Can you translate the ESG-speak?

[A] company cannot achieve long-term profits without embracing purpose and considering the needs of a broad range of stakeholders.

Pro-ESG or ESG-aware?

BlackRock Letter to CEOs 2018

the largest transfer of wealth in history: $24 trillion from baby boomers to millennials. As wealth shifts and investing preferences change, environmental, social, and governance issues will be increasingly material to corporate valuations.

Pro-ESG or ESG-aware?

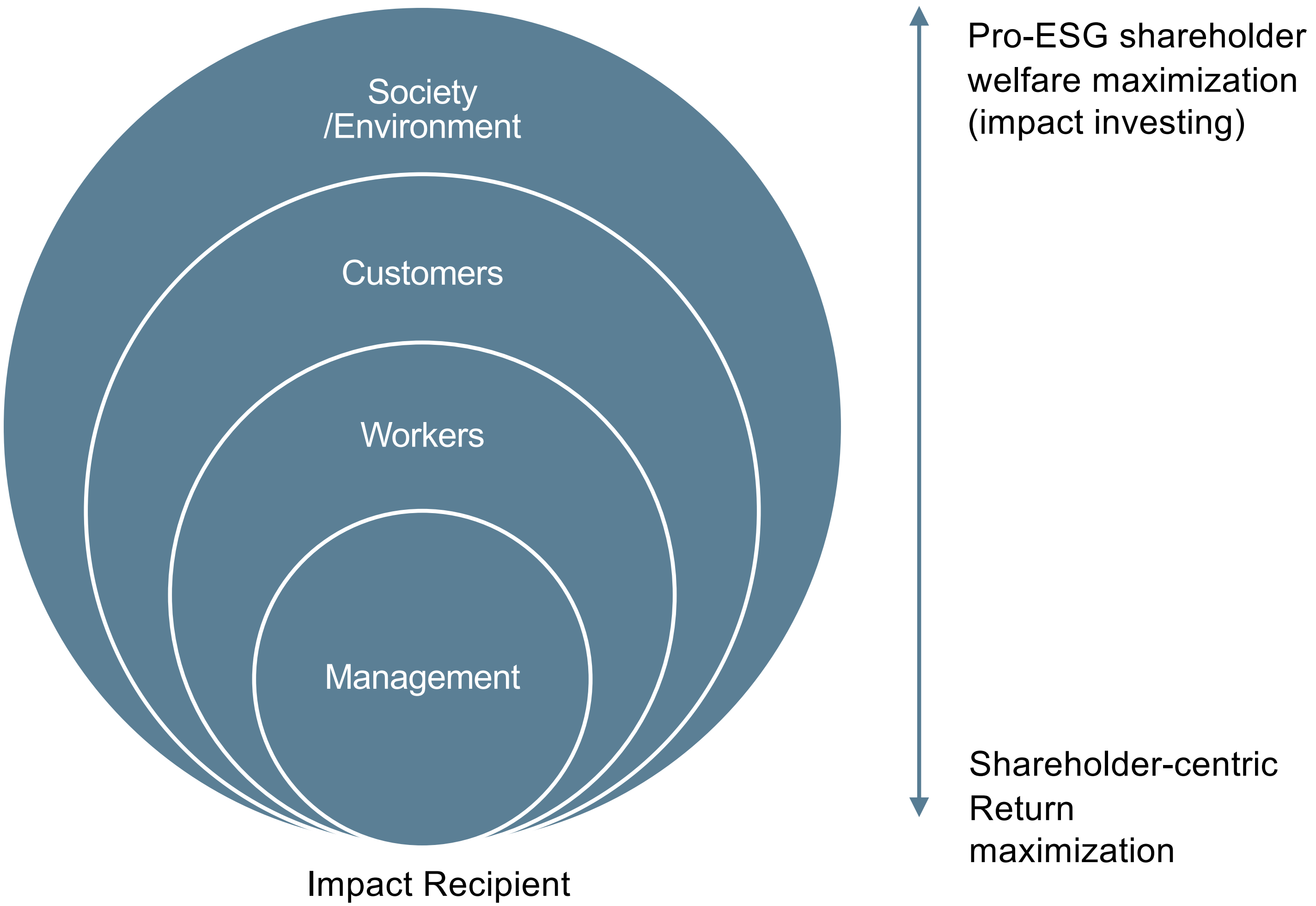
BlackRock Letter to CEOs 2019

BlackRock is an ESG-aware manager but may not stop Izumi from believing their funds are pro-ESG.

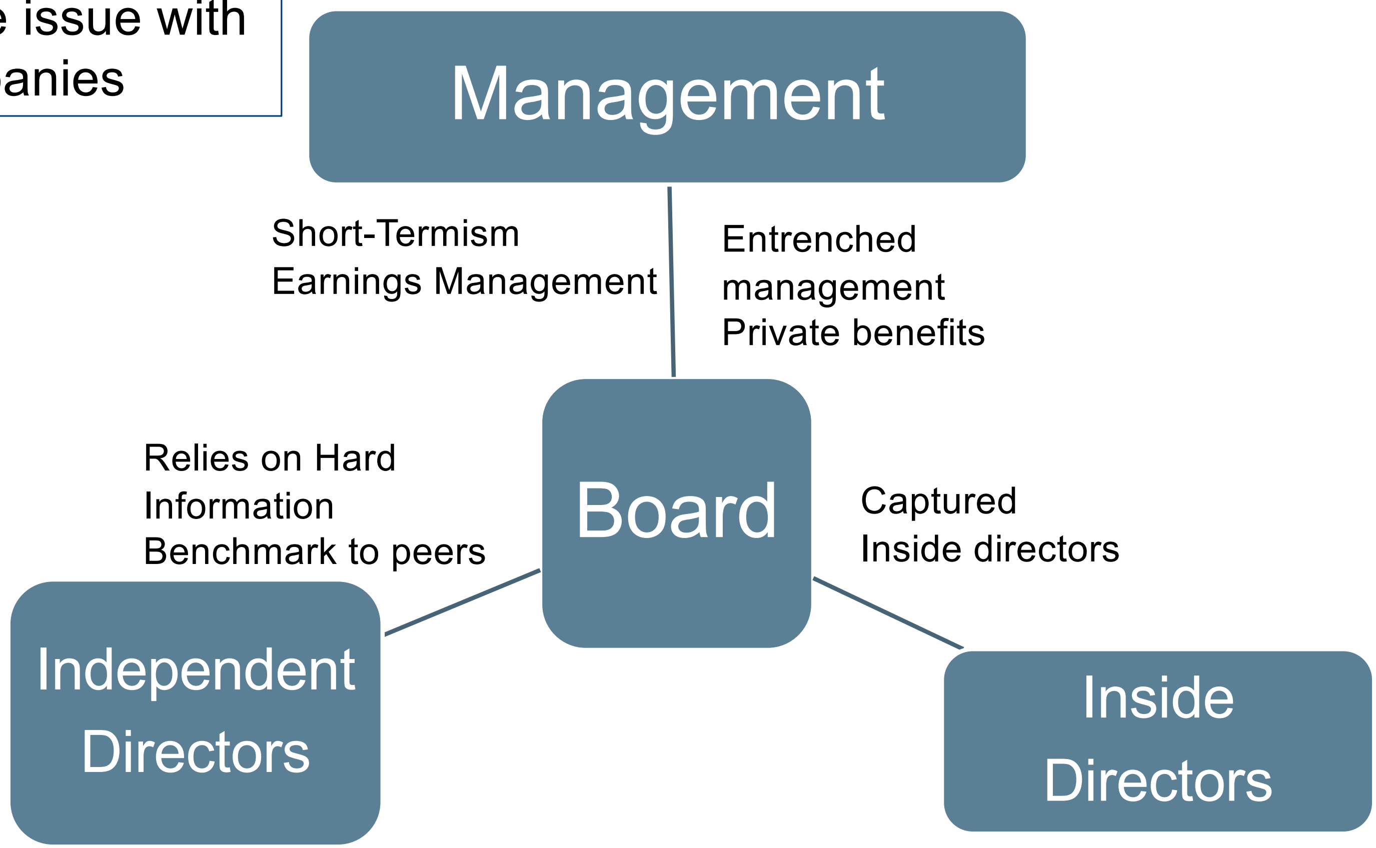
Krueger, Sautner, Starks (2020): Institutional investors believe climate risks already have begun to materialize for their portfolio firms.

ESG-Aware!

- Rest of talk discusses the literature on impact of private equity
- Organized by the increasing inclusion of stakeholders and public interest



Governance issue with public companies



Impact on Executives, Management, Board

Management

Cronqvist and Fahlenbrach (2013)
Equity performance-vests on prespecified measures
Unvested equity forfeited if fired

Edgerton (2012)
Corporate jet fleets ↓

Board

Cornelli Kominek Ljungqvist (2013) Cornelli Karakaş (2015)
Independent directors ↓
Soft info monitoring ↑
CEO turnover ↓

Acharya Kehoe Reyner (2009)
New CEOs often brought in by PE
Kaplan Klebanov Sorensen (2012)
Performance X with CEOs with resoluteness and execution skill

PE sponsors

X = positively correlated

Operational Skill / Management Practice

- Bloom Sadun Van Reenen (2015, 2017): Score management practice as a technology. PE-owned firms are better managed than family-run, founder-owned, or government-owned firms.

TABLE 3—PE MANAGEMENT PRACTICE GAP BY TYPE OF PRACTICE AND DECENTRALIZATION

Dependent variable	Operations (1)	Targets (2)	Incentives (3)	Decentralization: hiring and investment (4)	Decentralization: sales, marketing, and new products (5)
Private equity ownership	0.147***	0.090**	0.027	−0.020	0.114**
	(0.037)	(0.037)	(0.043)	(0.037)	(0.058)

Continuous monitoring, lean manufacturing

Stretching but realistic targeting

Surprisingly insignificant

Delegation to plant managers

- Bernstein and Sheen (2016): Cleaner, better-run restaurants under PE ownership

Growth for Private (*but not Public*) Targets

Idea: PE owners relax financing constraints and unleash growth of private (but not public) targets.

- Cohn Hotchkiss Towery (2022): for **private-to-private U.S. deals**, profitability and revenues ↑ after buyouts
  - In contrast, for public-to-private deals, Cohn Mills Towery (2014) find no change in operating performance
- Boucly Sraer Thesmar (2011): PE relaxes credit constraint and growth ↑ for French **private-to-private LBOs** / targets in external finance-dependent industry
- Fracassi Previtero Sheen (2019): sales ↑50% for consumer products only for private-to-private deals. For public-to-private deals prices↑ and sales ↓
- At the macro level, private equity is re-allocating capital away from public firms to private firms with growth opportunities

Impact on Workers

Davis, Haltiwanger, Handley, Jarmin/Lipsius, Lerner, Miranda (2014/2021)

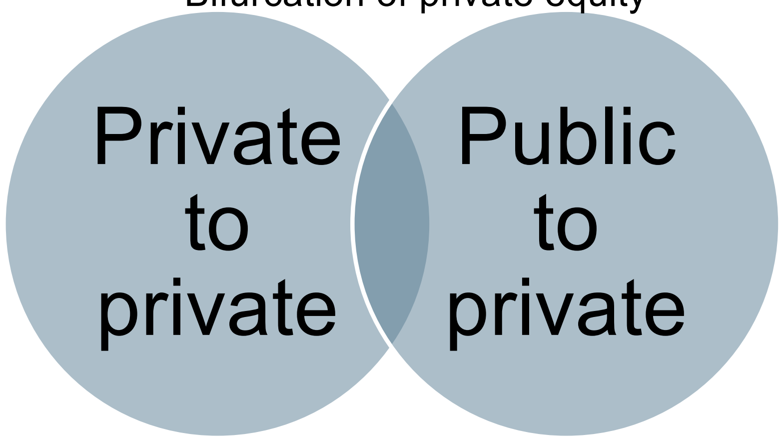
- **Census** firm/establishment level data merged with other sources
- Everything measured against matched control firms
- Jobs ↓ (↑) at low (high) productivity plants.
- **Jobs ↓ (↑) 13% at public-to-private (private-to-private)** targets.
  - Financing constraints eased for private targets.
- Net job ↓ -4% (excl. inorganic +/-)
- Wage ↓ modestly, converging to control firms’
- TFP ↑ 8% from active job reallocations.
- TFP gains ↓ for deals done during easy credit conditions.
- **Public-to-private** deals’ job and TFP outcomes sensitive to credit spreads and GDP growth.

“[P]ublic-to-private deals proliferate in advance of credit market tightening, and their targets exhibit large post-buyout employment losses and poor productivity performance during aggregate downturns…Do public-to-private … buyouts cause avoidable employment losses? Or were target firms in dire need of restructuring? Given the productivity gains at target firms, were the matched control firms also in need of major restructuring?”

Davis et al. (2021)

- Targets are human and financing constrained
- TFP gain X job gains
- Growth-driven
- Operational performance ↑
- Invisible to public
- 90% deals, 70% jobs

Bifurcation of private equity



- Inefficiently run ex ante
- TFP gain X job cuts
- Dependent on financial engineering
- Busts when spreads↑
- Visible and drives hostile public sentiment
- 10% deals, 30% jobs

X = correlated with

Bifurcated Outcomes on Workers

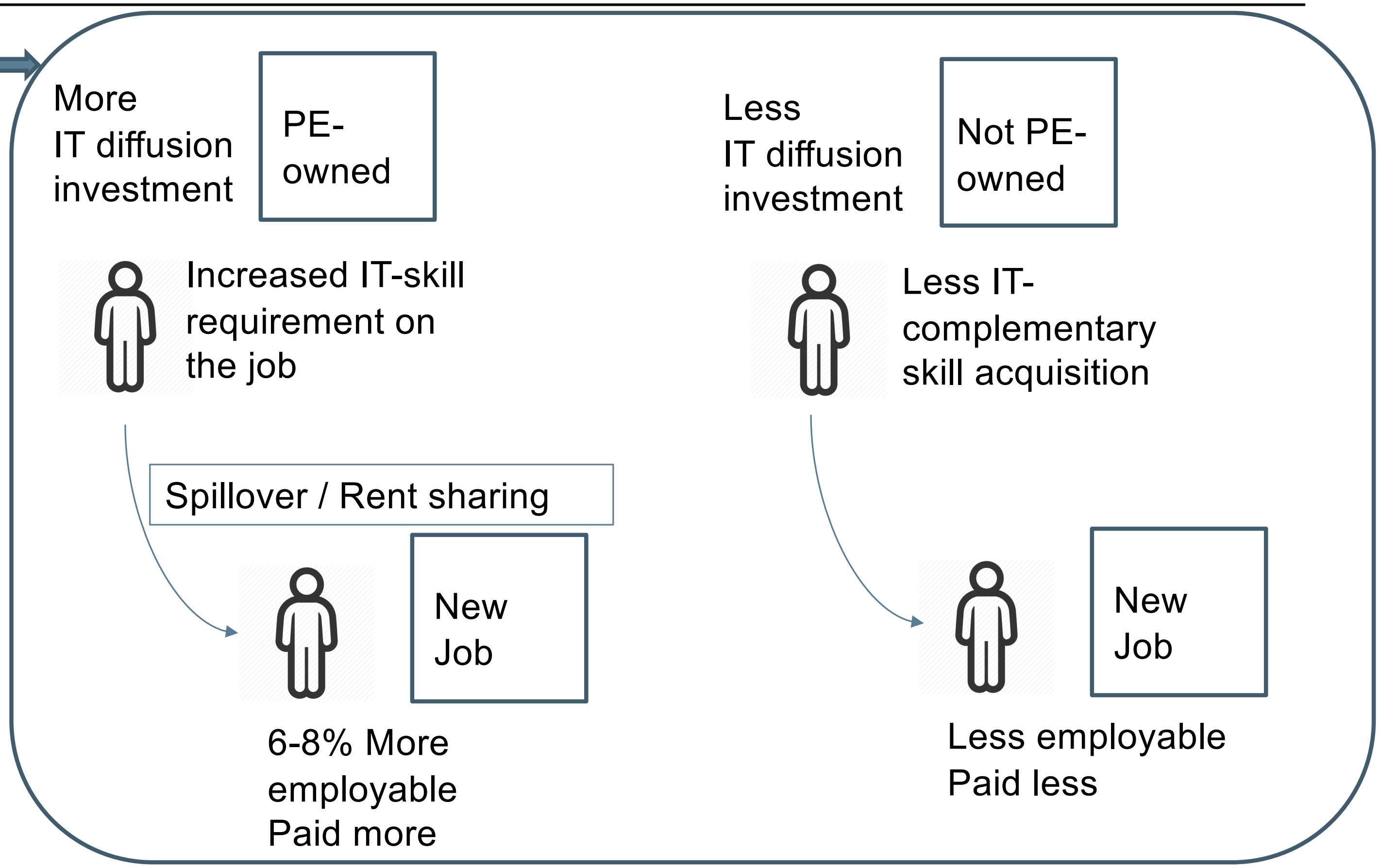
Agrawal and Tambe (2016)

Results concentrated in

- PE with IT focus
- PE that invest more in IT
- Workers with more IT-complementary tasks
- Workers with college degree

Olsson Tåg (2015)

- PE triggers automation and offshoring
- Unemployment twice as high for workers in offshorable or routine jobs at low productivity firms



Impact on Consumers (1)

- Competitive industry
  - Bernstein and Sheen (2016): Chain restaurants are cleaner and better run, menu prices ↓
  - Fracassi Previtero Sheen (2019): Consumer product prices kept flat, new products launched ↑

X = positively correlated with

Impact on Consumers (2)

- Subsidized industry
  - Eaton Howell Yannelis (2019): for-profit colleges' graduation rates, graduates' earnings ↓ after PE buyout
  - Gupta Howell Yannelis Gupta (2020): PE-owned nursing homes' compliance rate, patients' health ↓ for (elderly) Medicare patients
- Regulated industry
  - Liu (2021): PE-owned hospitals negotiate higher prices with private insurers and healthcare $ spending ↑ by 11% while quality of service unchanged
  - Kirti and Sarin (2020): insurers engage in credit rating arbitrage (using ABS) ↑
  - Bellon (2020): fracking firms' polluting ↑ once regulation rolled back

Environmental Damage

- Shive and Foster (2020): Among EPA-regulated firms, private independent firms' GHG emission < public firms but PE-owned firms' GHG $\approx$ public firms' emission.
  - Similar results with incidence of enforcement actions.
- Bellon (2020): Among fracking firms, PE-owned firms choose less-pollution technology than non-PE-owned firms.
  - But polluting ↑ immediately when regulatory risk ↓
  - Evidence that cleaner technology choice X long-run CF and exit price
- Both studies suggest traditional PE choices motivated by ESG-aware not pro-ESG preferences

- What if investor preferences change? Would PE behave differently?

X = positively correlated with

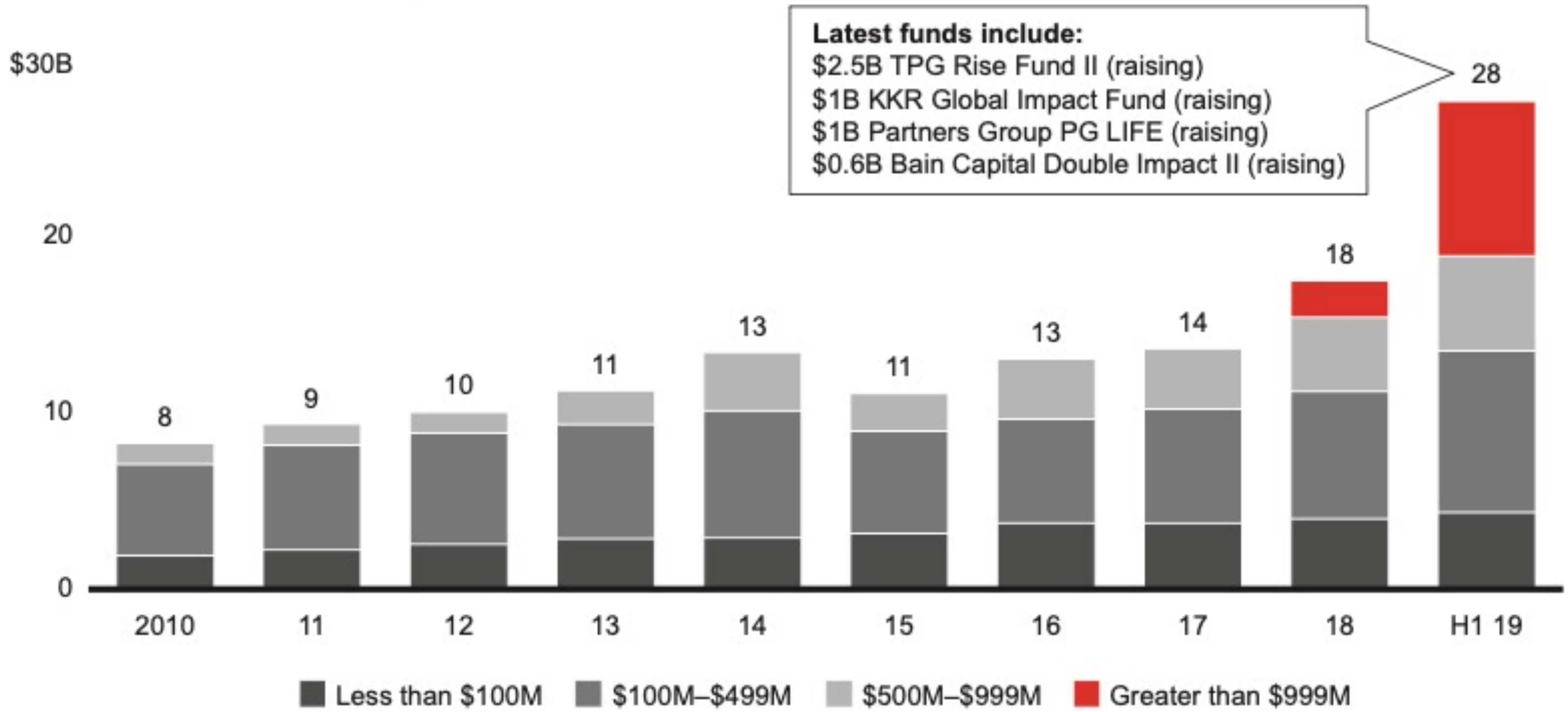
Innovation

Do LBOs (or leverage) lead to socially undesirable low innovation? Or does PE acquire firms that optimally should scale back?

- Amess Stiebale Wright (2016): PE relax financing constraints and increase quality-adjusted patenting 6% in **private-to-private** deals but not for public-to-private deals
  - Echo of growth LBOs
- Lerner Sorensen Stromberg (2011): Post-buyout firms' patent programs more focused, better cited.
- Ayash and Egan (2019): In **public-to-private deals**, new patent grants and purchases ↓ and sales of existing patents ↑
  - Interpretations ambiguous (as in Davis et al. (2019))
  - Are control firms that hold on to (perhaps unused) patents inefficient?

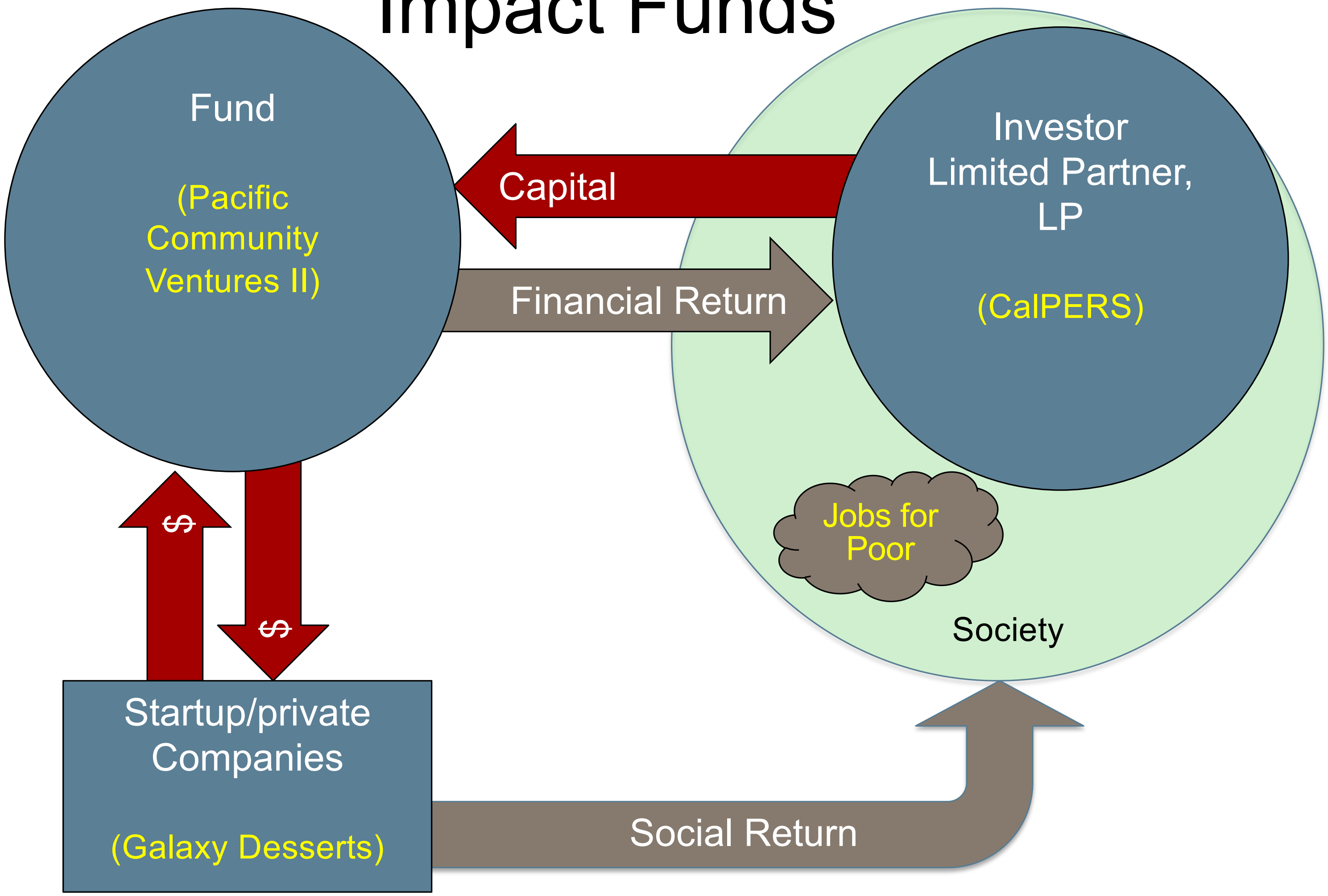
Impact Investing in PE/VC Space

Total AUM of Dedicated Impact PE/VC Funds



Bain (2020).

Impact Funds



“Impact Investing” Barber, Morse, and Yasuda (2021)

Question: Do investors knowingly accept lower expected financial returns in exchange for nonpecuniary benefits from investing in assets with both social and financial objectives?

- LPs accept 2.5-3.7% lower expected IRR (“willingness to pay”) for impact funds compared to traditional VC funds. Consistent with Pastor Stambaugh Taylor (2021) model of explicitly pro-ESG investors
- Development organizations, foundations, financial institutions, public pensions, Europeans, and UN PRI signatories have high willingness to pay (WTP).
- Investors with mission objectives and/or facing political pressure have high WTP.
- Investors bound by U.S.-style fiduciary duty have low WTP.

Impact investors are pro-ESG & are willing to trade off financial returns
U.S.-style fiduciary duty may constrain some pro-ESG investors’ welfare maximization

“Contract Costs, Stakeholder Capitalism, and ESG” Fama (2020)

“[U]nlike wealth, welfare has multiple dimensions (for example, E and S and G), and tastes for different dimensions vary across shareholders…. How do we write and enforce a payoff function in which managers are evaluated on wealth along with multiple dimensions of welfare, with the likelihood of randomness in outcomes on all dimensions? [This] puts us in the quagmire of satisfying the divergent tastes of shareholders …a problem that implies high contract costs.”

- Contract cost problem is real but seems more solvable for PE than for public firms.
- Limited partnership agreement is a take-it-or-leave-it contract.
- GPs can offer a menu of contracts to meet divergent preferences of different LPs.
  - Geczy Jeffers Musto Tucker (2021): Cross-sectional variation in contracts
- LPs can opt in or out. Number of LPs is finite and manageable. Once committed, they are locked in and secondary sales of fund interests can be restricted.
- Plausible that PE is more compatible with stakeholder capitalism than public corporations.

Why – What – How

Satoru wants to….	Alleviate conscience	Socially Responsible Investment (SRI) Fund	Negative screening Divestment
Izumi wants to….	Allocate to solution	Impact Fund Activist ETF	Impact startups Proxy campaigns
Eriko wants to….	Avoid risk	Passive ESG Fund /ETF	Hold high ESG-rating stocks Re-balance portfolio

ESG case study: BlackRock ESGU (iShares ESG Aware MSCI USA ETF)

- Tracks MSCI USA index and tilts toward stocks with high ESG ratings by MSCI
- MSCI ESG ratings are materiality-based (ESG-aware), not impact based.
- Big tech stocks (profitable, great employee perks, small carbon footprint) are among favorite ESG-aware stocks

Top holdings:

1. Apple
2. Microsoft
3. Amazon
4. Alphabet
5. Tesla

"there is virtually no connection between MSCI's "better world" marketing and its methodology. That's because the ratings don't measure a company's impact on the Earth and society. In fact, they gauge the opposite: the potential impact of the world on the company and its shareholders. MSCI doesn't dispute this characterization. It defends its methodology as the most financially relevant for the companies it rates."

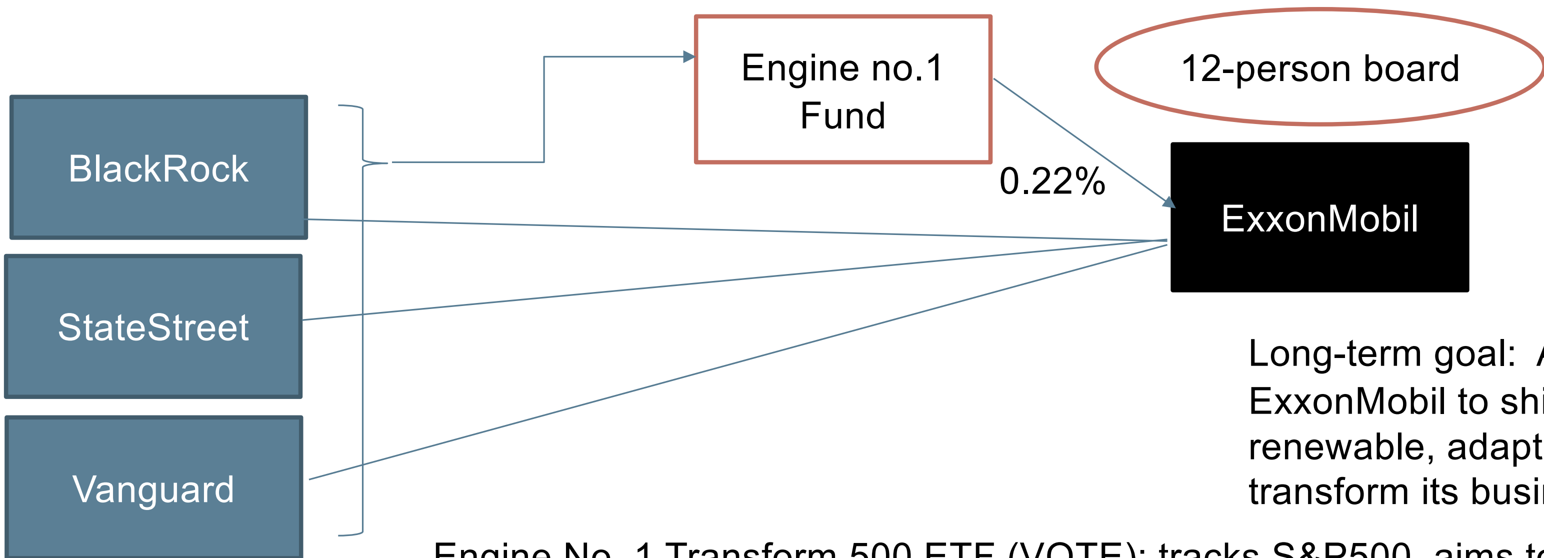
Bloomberg Businessweek 2021

ESG Confusion Problem

- Problem is NOT that ESG ratings measure sustainability in ESG-aware and not pro-ESG way.
- Problem is that ESG funds using ESG ratings for stock-picking market themselves as pro-ESG or even impact funds.
- This is false advertising.
- This is where I have the biggest frustration with the way ESG investing is presented to public today.
- Both corporations and investors need to identify whether their sustainability goals are ESG-aware or pro-ESG, and articulate strategies that match their goals

Activist ETF Case Study: Engine no.1 Fund

Proposed 4 new directors
Exxon rejected the proposal
Investors supported 3 of 4
Big upset for incumbent Exxon CEO

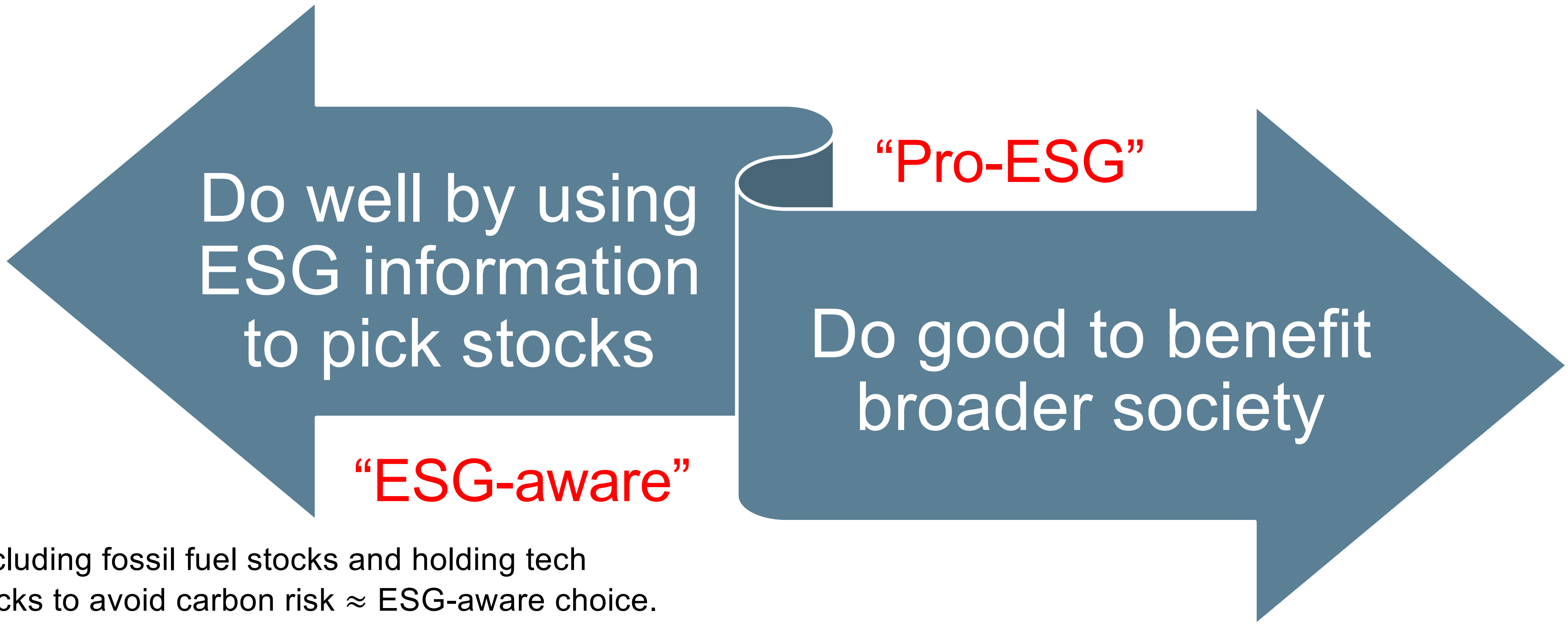


Big 3 own ≈20%

Long-term goal: Ask ExxonMobil to shift more to renewable, adapt for climate, transform its business

Engine No. 1 Transform 500 ETF (VOTE): tracks S&P500, aims to use shareholder votes to effect boardroom changes
Higher potential to cause a positive impact

The contrast in portfolio choices



Excluding fossil fuel stocks and holding tech stocks to avoid carbon risk ≈ ESG-aware choice.

Holding "dirty" stocks and actively force boards to change firm policies so they becomes "clean" ≈ pro-ESG choice.

Takeaways

1. Private Equity amplifies both the good and bad of capitalism
   - Public-to-private buyouts result in net job loss / higher price
   - Private-to-private buyouts benefit workers/consumers with growth and better management skill
   - PE in regulated/subsidized industries makes market failure worse, harming customers, taxpayers and the environment
   - PE in competitive industries improves consumer welfare
2. Impact fund structure better aligned with pro-ESG investors' goals than public ESG funds/ETFs
   - Know whether you are ESG-aware or Pro-ESG investors

Suggestions for Research

1. Employer-employee matched data available in Japan?
    - Distribution of worker welfare outcomes (wage, hours worked, employment)
    - Innovation outcomes
    - Public vs. private targets
2. Will Japan be more like U.S. or Europe in fiduciary duty for ESG?
    - Implications for growth of ESG/impact funds

Thank you!

www.ayakoyasuda.com
linkedin.com/in/ayako-yasuda/